The Province of Ontario, Canada - its extent resources, climate and development.
1903.

The Province of Ontario

Canada

Its Extent, Resources, Climate *and* Development

Prepared by Direction *of the* Commissioner *of* Crown Lands, *1903*

A STATEMENT

CONCERNING THE

Extent, Resources, Climate and Industrial Development

OF THE

PROVINCE OF ONTARIO

CANADA

Prepared by Direction of THE HON. E. J. DAVIS,
Commissioner of Crown Lands

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A CONTENTED AND PROSPEROUS PROVINCE.

(*Extract from an address delivered by the* HON. RICHARD HARCOURT, *Minister of Education, Ontario.*)

CAN a country be named the size of ours, with a like population and like conditions, where the people generally are either more contented or prosperous? Where the general average of comfort is higher? Where the prospects of a very bright future are more encouraging? Where there is less illiteracy, less crime, less abject want?

Times were never better than now. No man need be out of employment. No class is discontented. No grievances exist. The mechanic, the laborer—everyone—has work to do, and a good wage for doing it.

The farmer is prospering greatly, and he brings to bear upon his work, to as great an extent as anywhere the whole world over, keen intelligence and critical observation. He is more and more beckoning science to his aid, and his calling was never so honourable as now. The acreage of land under cultivation in Ontario has increased by nearly a million acres in ten years.

Our mining industries were never so prosperous, nor the output or value of our mines as large. We are only beginning to appreciate the value of our heritage, and capitalists the world over are constantly examining into our resources.

Large enterprises are being successfully launched, new undertakings commenced, and that spirit of hopefulness which alone is needed to attract capital for all kinds of undertakings is manifest in every direction.

Railways are being constructed and emigrants in large numbers are pouring into our inviting Northland. Trade is buoyant and prosperity universal."

INTRODUCTORY SURVEY

THE history of the early settlement of Ontario dates back about one hundred and fifteen years, to the close of the American War of Independence. In 1784 about 10,000 of those who desired to maintain their allegiance to the Motherland, migrated from New York, Pennsylvania, and the New England States, and settled along the River St. Lawrence, around the Bay of Quinte, on the shores of Lake Ontario

and in the Niagara Peninsula. They are known to history as the United Empire Loyalists, and were of varied descent, numbering among them many sons of England, Scotland and Ireland, besides persons of German, Dutch and Huguenot origin. Some were farmers, but the greater number consisted of discharged officers and men who had served Great Britain in the late war, and were unaccustomed to pioneer life. They began the arduous tasks of felling the trees, clearing the land, (for Ontario was an unbroken forest) the building of rude houses and barns, and the planting of cleared ground among the stumps of the forest trees with wheat, oats, and potatoes for the sustenance of themselves and their families. In 1812 the population had grown from practically nothing to 80,000, all of whom, with the exception of a few hundred, were engaged in tilling the land. At this time the principal articles exported from the farms were oak and pine timber, and potash distilled from wood ashes. Gradually a larger amount of land was brought under cultivation, and more substantial dwellings and farm buildings of sawn lumber took the place of the first crude log structures. In 1830 there were five towns in the Province of over 1,000 inhabitants each, viz: Brockville, 1,130; Hamilton, 2,013; London, 2,416; Toronto, 2,860; and Kingston, 3,587. The Province could also boast of one daily paper and one bank. In 1837, the population had increased to 397,500, by far the greater portion still living on the farm.

Early Settlement.

About that time an extensive immigration set in from England, Scotland and Ireland. The great famine of 1846 sent Irish immigrants to America by tens of thousands. These new comers, who were a very fine class of settlers, located as a rule in groups or blocks, which formed the nuclei of some of the richest townships of Ontario. In this manner arose the Highland settlement of Glengarry, the settlement of English gentlemen and retired military officers near Cobourg, the Irish settlement near Peterboro', the military settlement near Perth, the Talbot settlement in Elgin, the Canada Company's settlement in the Huron Tract, the block of Paisley weavers in Wellington, the Germans in Waterloo, Huron and Renfrew, and the French Canadians in Essex, Prescott and Russell.

The year 1853 saw the beginning of the railway era, the first line in operation being that from Toronto north to the town of Bradford. This was followed three years later by the establishment of railway connection between Montreal and Toronto by the Grand Trunk Railway, after which the work of improving communication and transportation facilities was pushed forward with vigor.

The lumbering industry now assumed very large proportions, and the lumbering and railway operations combined with the influx of immigrants and capital, greatly stimulated all branches of trade.

To-day Ontario has a population of about 2,500,000. Its primary sources of wealth are four in number—its farms, its forests, its mines, and its fisheries, which will hereafter be briefly described. To these is added manufactures as a fifth. Agriculture is still by far the most important industry in Ontario, representing $1,000,000,000 of invested capital and an annual production of over $200,000,000.

Population.

Ontario has an estimated area of two hundred thousand square miles—not including that portion of the Great Lakes that lie within the international boundary—with an extreme length from north to south of 750 miles, and a breadth of 1,000 miles. It is larger than the nine north Atlantic states of the American republic by one third; larger than Maine, New Hampshire, Vermont, New York, Pennsylvania and Ohio combined; larger than Great Britain and Ireland by seventy-eight thousand square miles. It is only four thousand square miles less than the French Republic, and only eight thousand less than the German Empire. Its extent cannot be fully realized until one has travelled from end to end over its territory. Less than twenty per cent. of the Province has yet been settled, over eighty per cent. still being in the hands of the Crown. In round figures there is an area of 100,000 miles unsurveyed, a considerable portion of which is almost unexplored. In area Ontario alone is vast enough to become the seat of a mighty empire, and its great resources warrant it in aspiring to a position of great commercial importance.

Area.

The geographical situation of Ontario, bringing its southern limit almost to the centre of the continent, and its remarkable water transportation facilities, afforded by the lakes and rivers which bound it on all sides, are points in its favour that many countries might envy. Consider the position of Ontario on the great waters that open to the commerce of the world—the mighty inland seas, Superior, Huron, Erie and Ontario, with their outlet to the ocean, the River St. Lawrence. While its northern point is a port on James Bay, its southern point, further south than Boston or Chicago, is washed by the waters of Lake Erie, which forms with other great lakes the finest system of inland waterways to be found anywhere. Note how like a wedge the territory of Ontario is driven right into the heart of the great agricultural states of the American Union; consider how many large cities there are on the American shores of these lakes and throughout the territory adjacent thereto, important centres of industrial population, which may by means of these waterways be easily and cheaply reached. Consider that by a little deepening and widening of channels and canals that already exist, ocean vessels of deep draught might be brought to the doors of the citizens of Ontario's capital itself; how with a little widening and deepening of the present canal system at Niagara Falls, these same

Geographical advantages.

vessels might pass through Lake Ontario and Lake Erie, and after touching at such ports as Buffalo, Detroit and Chicago, proceed on their way through Lake Huron to the City of Duluth, at the farthest western limit of Lake Superior thus penetrating half way across the continent, a distance of 2,384 miles, and there tapping the prairies of the West. Already vessels drawing fourteen feet have sailed from Lake Superior to Europe, and vessels drawing twenty feet sail from Lake Huron to Lake Superior ports. There now passes through the Sault Ste. Marie canals at the juncture of Lakes Superior and Huron, in the seven months of navigation, a greater tonnage of shipping, American and Canadian, than passes through the Suez canal in the whole year. These facts make it readily apparent that the geographical position of Ontario gives her many of the advantages of a maritime country, including remarkable natural facilties for the cheap distribution of her products, whether of the field, the mine or the forest, to the markets of the world.

SOUTHERN ONTARIO.

To facilitate description, it will be necesssry to divide the Province into two districts, namely, the southern, or settled portion and the northern, or sparsely settled portion. The settled portion is contained within the triangle or wedge of country, the apex of which extends southward into the territory of the United States, to the latitude of the City of New York. This triangle, 49,000 square miles in area, forms practically an island, washed by the waters of two large rivers, the St. Lawrence and the Ottawa, and three of the great lakes, Ontario, Erie, and Huron, thus possessing opportunities for commerce such as few other inland countries enjoy. It contains over twenty-three million acres of occupied farm lands, and nearly the whole of Ontario's population is to be found within these boundaries. Southern Ontario is for the most part of great fertility, and may be described as purely agricultural land of considerable development, suited by its soil and climate to all branches of farming. In this respect it is very similar to New York State and other adjacent States of the Union.

Most of the leading cities and towns of Southern Ontario are located on the shores of the lakes and rivers named above. The following brief description will give an indication of their size and commercial importance.

Toronto. Toronto, the prosperous capital of Ontario and the second city in Canada, is situated on the north shore of Lake Ontario, and has a population of *211,727 (1902). It is the principal commercial and distributing point of Central Canada, and the seat of the University of Toronto and many other leading educational institutions. Its mercantile importance is indicated by the extent of the financial transactions of its banks, the bank clear-

* Assessor's figures.

An Ontario City Street.

ings for 1902 amounting to $809,078,559, an increase of $183,850,253 over the previous year.

Toronto has numerous and important manufacturing industries, including extensive iron foundries, railway shops, pork packing houses, ship yards, distilleries, carriage, piano, and agricultural implement factories. The city occupies an unrivalled position as a railway centre, the Canadian Pacific and Grand Trunk Railway systems, with their tributary roads making it the radius of eight lines to the north, east and west; while in the open season a large amount of traffic is conducted by the fine lines of steamships which ply regularly to Montreal and the leading Lake Ontario ports.

The accessibility of all the picturesque region to the north bordering on the Muskoka Lakes and the Georgian Bay, and the central position of Toronto with regard to other points of interest, result in attracting to it a very large number of tourists every season. It possesses excellent hotel accommodations, banking and telegraph facilities, and one of the finest and best-equipped street car services on the Continent. Few large centres of population are so well provided with spacious parks and recreation grounds. Its numerous public buildings include the City Hall, recently erected at a cost of $3,600,000, the Provincial Government buildings, occupying a commanding position in the Queen's Park and the University of Toronto close at hand. The business streets which are solidly paved with asphalt, are adorned with many handsome structures The residential and educational advantages of Toronto induce large numbers of well-to-do people to become citizens and few communities surpass it in the air of prosperity, comfort and neatness, observable in its many miles of spacious, well-shaded streets.

Ottawa.

The city of Ottawa, which is the capital of Canada, is picturesquely situated on the Ottawa River, forming the boundary line between the Province of Ontario and Quebec, its population being 61,151. It is about 100 miles distant from Montreal. Its most conspicuous feature is the handsome and substantial Parliament and Departmental Buildings which occupy a central and commanding position, and there are also some fine educational buildings and churches. Rideau Hall, the residence of the Governor-General, is situated in the suburbs. Ottawa is well laid out with wide streets and has a model electric railway service. Its most important business interest is the lumbering trade drawn from the extensive region of the upper Ottawa and its tributary streams. The navigation of the Ottawa River is interrupted by the Chaudiere Falls, which furnish a magnificent water-power for a large number of lumber mills and wood-working establishments. Its industries also include pulp and paper and woollen manufactures, machine-shops, foundries and car-shops.

The handsome and prosperous city of Hamilton is very attractively situated on a beautiful bay at the extreme western end of Lake Ontario, 40 miles by rail southwest of Toronto, and 56 miles northwest of Niagara and the American border. Population 54,035. Hamilton occupies an alluvial plain lying between the bay and the escarpment (or "mountain" as it is locally called)—a continuation of the height over which the Niagara plunges at the Falls. From this summit a magnificent view may be had. The city lies immediately below, and beyond it the broad blue waters of Lake Ontario stretch away to the eastern horizon. The plain is covered in all directions with fine farms and dotted with thriving villages, for the city is the center of a magnificent farming section devoted largely to fruit.

Hamilton.

The total capital invested in the manufacturing industries of the city is about $8,000,000, and the number of men employed is 14,000. It has extensive manufacturing industries, including woollen and cotton mills, sewing machine, glassware, boot and shoe, stove and implement works, machinery, water and gas pipes, furniture, saw and planing mills, rolling mills, bolt and tack works, breweries, etc. There are a number of fine public buildings, including one of the finest insane asylums in the Province, besides numerous well built schools, churches, an opera house, two hospitals and a large public library.

The city of London, 76 miles west of Hamilton and 121 from Toronto, is the centre of one of the leading agricultural districts of the Province. Its population is 39,265. Its chief industies are agricultural implements, breweries, car-shops, chemical works, brick and tile works, and boot and shoe factories, and it ships grain, live stock and farm produce, besides the articles above named.

London.

Kingston is situated on the River St. Lawrence, 172 miles west of Montreal about half way between that city and Toronto. Its population is nearly 18,463. Chief industries: locomotive, car and steam engine shops, quarries, agricultural implements, cotton and hosiery, pianos, organs, chemicals, etc. It has an English and a Roman Catholic Cathedral and two important colleges - the Royal Military College and Queen's University; also an observatory, museum and library.

Kingston

The city of Brantford on the Grand River is one of the most enterprising and progressive of the smaller cities of Canada and has a population of 17,000 people. Some 3,000 men are employed in the different manufacturing establishments, the leading industry being the manufacture of agricultural implements. Brantford stands third among the cities of Canada in the export of manufactured goods, and it is also an important agricultural centre. It is served by the Grand Trunk, and the Toronto, Hamilton and Buffalo Railroads, and is the seat of the

Brantford.

Provincial Institution for the education of the blind. The Six Nation Indian Reserve is in the immediate neighborhood, and in the burying ground attached to the old Mohawk church, lie the remains of Chief Joseph Brant, the faithful ally of the British during the Revolutionary war.

The other cities of Ontario are Guelph, St. Thomas, Belleville, Chatham, St. Catharines, Stratford, Windsor and Woodstock.

City Hall, Toronto.

NORTHERN ONTARIO.

As the pioneers in the early days in Ontario proceeded northward, hewing down the forest before them in their path and preparing the land for the plow, they soon found that the country underwent a complete change in its character. Instead of the continuous stretch of arable land they were accustomed to in the south, they found rock and river, hill and lake on every hand, and almost impenetrable forest; and so unsuited did it seem to farming purposes that they soon desisted from their efforts to settle it. Later on the lumbermen penetrated its more accessible regions, and as that industry grew and thrived, towns and villages sprang up here and there devoted largely to lumbering, saw-milling and kindred businesses. As time has progressed, it has been gradually demonstrated that it possesses not only great forest wealth, but great mineral wealth; and not only so, but that immense sections of it are quite as well suited for agriculture as the land in the southern part of the Province.

Area.

Northern or "New" Ontario is estimated to contain 141,000 square miles, and has an area almost three times as great as Southern Ontario. It is divided into four districts, Nipissing, Algoma, Thunder Bay, and Rainy River. Until very recently little was known of the capabilities of the major portion of this territory. A very limited amount of systematic exploration had been undertaken, and the country remained in a great measure an asset of unknown value to the Province. In order to learn more definitely the nature of its resources, the Provincial Government in 1900 organized a number of exploration parties, who traversed the country from the Quebec boundary in the East to the Manitoba boundary in the West, and northward from the better known districts to the Hudson Bay slope. The result has been to demonstrate the fact that the value of the country, especially as regards its agricultural resources, is far greater than had been supposed. That the northern country contained great forest wealth and probably great mineral wealth, had previously been admitted, but the astounding fact was not looked for by many that an agricultural region of undoubted fertility, with an acreage greater than the whole of Ontario at present under crop, extended from Lake Temiskaming in the East almost entirely across the province. To this section, which lies between the 49th and 50th parallels of latitude, has been given the name of the "Great Clay Belt," and it is estimated to contain 24,000 square miles, or 15,680,000 acres. To say that this territory could be made to support a population of a million souls is surely not an overestimate. Almost the whole of this region is well adapted to agriculture. It is well wooded, and is watered by no less than seven large rivers of over 300 miles in length

Recent Exploration.

Agricultural Land.

which flow northward to Hudson Bay, while, in addition, there are numberless smaller streams and lakes. Nor is the climate by any means an obstacle to the settlement of the country, as many have supposed. Although it lies in the North from the point of view of the people of Old Ontario, it should be borne in mind that, as a matter of fact, it is in the same latitude as Southern Manitoba and the northern portion of the States of Minnesota and Dakota.

Discovery very valuable.

What this discovery (and from the indefiniteness of the knowledge that existed previously, it can scarcely be regarded in any other light), means to the Province is gradually being realized. One or the first results has been the stimulating of railway enterprise. Afterwards will follow the gradual settling in the country, and the development of its dormant resources. At present the region is inaccessible to the settler, but that it will not long remain so is apparent from the number of railroads leading to it that are already in course of construction or are projected.

A Northern Ontario Farm.

There are, however, many other fine agricultural tracts in New Ontario to which the objection of inaccessibility cannot be said to apply. To these the attention of the home-seeker may be directed. Among them may be mentioned the Rainy River Valley, on the Minnesota boundary, containing from 750,000 to a million acres of land of literally unsurpassed fertility ; a very important area at the head of Lake Temiskaming, containing fully one million acres of rich soil ; the valley of the Wabigoon River with an area of 384,000 acres ; besides other sections of lesser extent or continuity. Of these districts a more detailed description will be found in the chapter devoted to Northern Ontario. In like manner will be found information concerning resources of the forest and the mine which belong to the country under consideration,—resources so extensive that their development, now only just begun, is bound in the near future to add enormously to the wealth and commercial importance of the Province.

Street Scene in an Ontario City During Visit of Duke and Duchess of Cornwall and York.

The Climate of Ontario.

THE popular idea of the climate of Ontario, not only in Great Britain but in the United States as well, is that ice and snow are the dominant features for most of the year. As a matter of fact, Canada has a very varied climate, as may well be imagined from the great extent and different topographical conditions. It is free from the enervating influences prevalent in more southerly climates, and it may truthfully be said that, taken as a whole, no country is better suited to be the home of vigorous and energetic manhood and womanhood.

The Province of Ontario extends farther south than any other province of the Dominion, namely to the latitude of Constantinople, while its northern boundary is on James Bay, a southerly extension of Hudson Bay. Through the months of June, July, August and September fairly hot weather prevails.

The winter climate of southern Ontario is only moderately cold. Here the great lakes temper both the summer heat and winter cold. At the same time, while they render the winter less severe, the atmosphere is more humid than in regions that are beyond their influence. In this section there is seldom any real winter weather until near Christmas, and by the end of March or the beginning of April spring begins to put in its appearance.

As one proceeds northward the winters gradually become colder, and the summers more temperate. In the Ottawa and Upper St. Lawrence valleys winter is moderately cold, but very exhilarating, and has the advantage of being steadier than in the lake region. The snowfall, too, is slightly heavier.

In northern Ontario, where the altitude is higher, the winters are longer and colder, the maximum degree of cold being on the north shore of Lake Superior. When once the great divide is crossed, and the land surface begins to slope towards Hudson Bay, the climate starts to moderate again, until on the shore of that sea, winter is said to be quite temperate.

Rainfall and Sunshine.

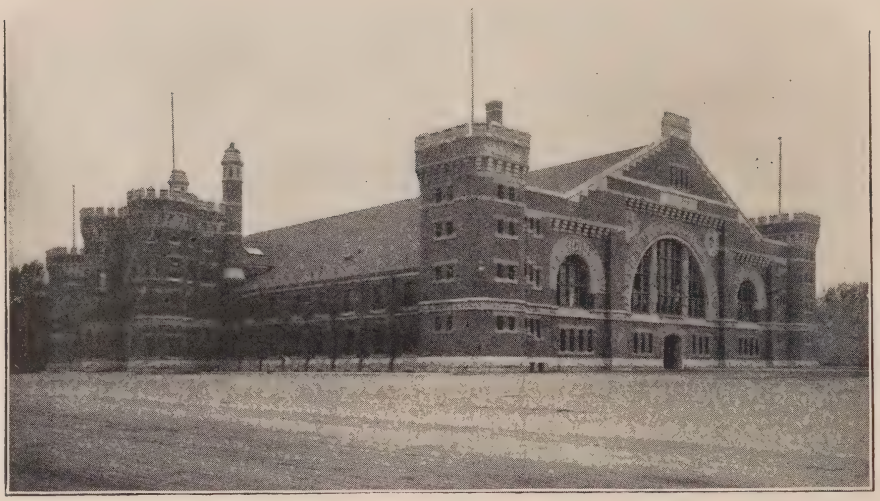
The annual precipitation varies in different parts of Ontario from thirty to forty inches, the average rain and snow fall being: rain, 25.28 inches on 81 days; snow, 64.6 inches on 34 days; 10 inches of snow being equivalent to one inch of rain.

The average number of hours of bright sunshine for the Province is 2,000 out of a possible 4,363 hours.

TORONTO OBSERVATORY REGISTER.

TABLE VI. Comparative Meteorological Register for the seven years, 1895-1901, at Toronto Observatory in Lat. 43° 36.4′ N., and Long. 5 hrs. 17m. 34·65s. W. Height above the sea 350 feet.

	1902.	1901.	1900.	1899.	1898.	1897.
Average temperature	45.57°	45.55°	45.89°	45.83°	47.15°	45.93°
Difference from average (61 years)	+1.18	+1.18	+2.52	+1.46	+2.78	+1.56
Thermic anomaly (lat. 40° 40′)	-5.45	-5.47	-4.13	-5.19	-3.87	-5.09
Highest temperature	91.0	97.1	98.0	93.1	97.1	93.3
Lowest temperature	- 3.3	-10.9	- 9.6	-12.0	-15.0	- 7.2
Monthly and annual ranges	94.4	108.0	107.6	104.1	112.1	100.5
Average daily range	16.81	16.90	16.70	17.51	17.48	16.21
Greatest daily range	33.2	43.0	37.6	35.0	34.4	36.0
Average height of barometer at 32° F.	29.5940	29.5988	29.6213	29.6368	29.6216	29.6319
Difference from average (61 years)	-.0255	-.0211	+.0014	+.0169	+.0017	+.0120
Highest barometer	30.394	30.328	30.224	30.403	30.218	30.353
Lowest barometer	28.712	28.868	28.802	28,657	28.730	28.779
Monthly and annual ranges	1.682	1.460	1.422	1.746	1.486	1.574
Average humidity of the air	77	77	76	76	76	76
Difference from average	0	+ 1	0	0	0	0
Average elasticity of aqueous vapour	0.278	0.291	0.295	0.279	0.289	0.274
Average temperature of dew point	43.0	44.3	44.6	43.1	44.1	42.7
Average of cloudiness	0.62	0.61	0.57	0.56	0.58	0.61
Difference from average (47 years)	+ .01	.00	- .04	- .05	- .03	.00
Resultant direction of wind	N 60° W	N 55° W	S 88° W	S 77° W	N 65° W	N 89° W
Resultant velocity of wind	2.53	2.99	3.09	2.66	1.78	2.42
Average velocity (miles per hour)	10.98	10.26	10.67	10.14	10.12	12.33
Highest velocity in month and year	44.0	45.0	44.0	50.0	55.0	51.0
Total amount of rain in inches	26.105	25.200	23.130	25.795	23,800	27.737
Difference from average (61 years)	-0.928	-1.866	-4.936	-1.271	-3.266	+0.671
Number of days of rain	116	102	99	105	98	110
Total amount of snow in inches	49.2	70 7	74.6	31.8	71.3	47.4
Difference from average (61 years)	-18.41	+ 3.15	+ 7.05	-35.75	+ 3.75	-20.15
Number of days of snow	37	54	42	40	53	43
Number of fair days	181	183	187	185	196	173
Number of days completely clouded	59	58	51	44	56	58
Number of auroras observed	2	2	3	10	7	3
Possible to see aurora (No. of nights)	185	201	224	226	210	179
Number of hours of bright sunshine	1958.9	1981.6	2305.0	2148.2	2128.9	1987.6
Number of hours of possible sunshine	4463.3	4463.3	4463.3	4463.3	4463.3	4463.3



The Armories, Toronto.

MONTHLY AVERAGES OF TEMPERATURES FOR EIGHTEEN YEARS AT TEN POINTS IN ONTARIO.

	Saugeen.	Birnam.	London.	Woodstock.	Stony Creek.	Toronto.	Lindsay.	Gravenhurst.	Ottawa.	Rockliffe.
	°	°	°	°	°	°	°	°	°	°
January. Monthly mean..	20.3	20.3	21.8	20.4	22.7	21.5	15.3	14.3	10.7	6.2
February. Monthly mean...	19.4	20.6	21.8	21.2	23,8	21.9	16.4	15.7	13.0	8.9
March. Monthly mean...	25.3	27.I	28.6	27.3	30.7	28.0	23.7	22.9	22.7	19.2
April. Monthly mean...	39.5	43.4	44.6	42.9	44.9	41.9	40.5	39.2	40.9	37.7
May. Monthly mean..	50.3	54.7	56.3	54.2	54.9	52.9	53.3	52.6	55.5	51.8
June. Monthly mean..	60.7	65.0	66.5	65.1	66.7	63.8	63.9	63.4	65.7	61.8
July. Monthly mean...	64.5	68.2	69.8	68.2	71.2	67.9	66.9	66.8	68.4	64.7
August. Monthly mean...	66.0	65.7	67.0	65.4	69.6	66.0	64.4	64.1	65.6	61.2
September. Monthly mean...	57.4	60.4	60.6	58.9	62.1	59.2	56.8	57.0	57.6	53.4
October. Monthly mean,..	46.1	48.2	47.8	46.6	49.5	47.4	44.2	45.0	44.6	41.6
November. Monthly mean...	35.7	36.7	36.9	35.8	39.4	37.0	32.9	33.2	32.1	29.1
December. Monthly mean...	27.0	26.7	27.6	26.2	30.5	27.8	22.0	22 3	17.8	15.0
Annual mean...	42.68	44.75	45.77	44.35	47.17	44.61	41.69	41.37	41.22	37.55

Midsummer Days in Muskoka.

Tourist Attractions in Ontario.

PRINCIPAL TOURIST ROUTES
SUMMER RESORTS
ATTRACTIONS FOR SPORTSMEN

ONTARIO—"a pleasant prospect of lakes and woodland," which the word in the Indian language implies—is aptly named. It is a land of lakes and rivers—rivers that have their source in the northern forests, and flow now swift, now peaceful, till they join the vast inland seas, Superior, Huron, Erie, Ontario, whose waters are in turn borne by the broad St. Lawrence to the ocean. Of beauty and variety of scene, therefore, Ontario has much to entice the footsteps of the traveller, while the invigorating qualities of its northern climate make it especially beneficial to those who reside farther south and desire to escape from the enervating influences of a southern summer

The tourist starts as a rule with Niagara Falls, partly because of its celebrated beauties, and also because usually it lies directly in the path of travel. After viewing this attraction and the magnificent Niagara River, his course will probably be across Lake Ontario, a distance of 45 miles, to the City of Toronto, the Provincial Capital. Toronto is a convenient centre from whence he may proceed East, West or North, as inclination directs.

The eastern route is preferably by boat along the north shore of Lake Ontario, past Port Hope, Trenton, Belleville, Picton and Kingston, all pleasant summer resorts, to the River St. Lawrence. Here the famous archipelago of the "Thousand Islands" is entered. For fifty miles the vessel picks its way among these charming islands, where with every new water stretch a fresh vista opens to the view, each more beautiful than the last. That this is a famous summering place is at once apparent from the homes that have been built, either among the pine trees, or perched on rocky bluffs, or half hidden in the beautiful bays.

The Thousand Islands.

Soon after passing the town of Brockville, at the foot of the "Lake of the Thousand Islands," the vessel enters the first of a long series of rapids. The passage by steamship through the churning, foaming water is certainly a most novel experience; but there is little danger under the guidance of the competent pilot. The last of the series is the far-famed Lachine, which is the finest of all. After the passage of the rapids is made, the City of Montreal is soon reached, which is the present head of ocean navigation.

Tourists in Queen's Park, Toronto.

From Lachine, a pleasant trip may be made up the Ottawa River, which forms the boundary between Ontario and Quebec, to the City of Ottawa.

It is to St. Anne, just above the Lachine rapids, that Moore refers in his beautiful "Canadian Boat Song:"

> "Faintly as tolls the evening chime
> Our voices keep tune and our oars keep time.
> Soon as the woods on shore look dim,
> We'll sing at St. Anne's our parting hymn.
> Row, brothers, row, the stream runs fast,
> The Rapids are near and the daylight's past."

The Ottawa River.

The Ottawa is a majestic stream, one of the most beautiful of the Dominion, and the sail is truly delightful. Ottawa, the capital of the Dominion, is a most attractive point. The magnificent Government buildings, situated upon a high bluff overlooking the river, the Chaudiere Falls, the immense lumber business, are all extremely interesting features, and make a day spent rambling about the capital a very pleasing experience.

The Upper Lakes.

The route through the Upper Lakes is a very popular one and undertaken annually by a large number of tourists. There are several well-equipped lines of steamers available, and the traveller may embark either at Owen Sound, Collingwood or Windsor, for a stimulating and refreshing trip of two or three days' duration which closely resembles an ocean voyage. The route lies through Lake Huron, past Great Manitoulin Island to Sault Ste. Marie, and the monotony of the expanse of water is continually relieved by the panorama of the coast. At the rapids, which occur at this point, named Sault Ste. Marie by the French voyageurs almost three centuries ago, magnificent locks have been constructed on both the Canadian and American sides, by means of which steamers are lifted to the level of Lake Superior. The immense water power afforded at this point is now being utilized in great industrial undertakings which promise to make Sault Ste. Marie a very important manufacturing centre.

Leaving Sault Ste. Marie for Fort William, the steamships take their course directly across the widest part of Lake Superior—which is far more like the sea than a fresh water lake—and in less than twenty hours come within sight of the rocky bluff of Isle Royale and the tremendous purple promontory of Thunder Cape—"The Giant Asleep." This turreted headland shelters the large indentation of Thunder Bay and affords a grand harbour which has been taken advantage of to form the principal ports upon the north shore of the lake—Port Arthur and Fort William. Here the tourist will find good hotel accommodation, and if he cares to stop over, he

A Typical View of the Muskoka Lakes.

can go by rail to Nepigon River, sixty-five miles east, a celebrated resort for trout fishermen.

Summer Resorts.

The attractions of Northern Ontario—a land of thousands of lakes and streams and myriads of islands—are unequalled for those who desire to spend the summer months on the lakes or in the woods, under canvas by the camp fire, or in the summer cottage or hotel. For the weary, over-worked toiler of the city the healing sunshine and pure northern air of this region will work wonders.

Among the best known resorts of the north, frequented by Americans and Canadians alike, may be mentioned the Muskoka lake region and the Georgian Bay. The Muskoka lakes are situated about one hundred miles north of Toronto and are much frequented by the people of that city. Summer cottages have been built on the islands of these lakes, where an unconventional, out-of-door life with all the attractions of good boating, bathing, fishing and pleasant society may be enjoyed.

The islands of the Georgian Bay, Lake Huron, thirty thousand in number, are equally attractive, The trip by steamer through the intricate channels of this region is one of the most beautiful that can be indulged in anywhere.

Nowhere in Ontario will there be found scenery more imposing than that of the upper Ottawa River. This river forms the drainage basin of thousands of miles of virgin forest, and it seems to carry with it much of the power and grandeur of the far northland where it has its source. The Ottawa is one of the water highways of the lumbering industry and many millions of feet of logs and square timber are yearly floated down its current to be sawn and marketed. Here the typical French-Canadian lumbermen may be met with voyaging in their flat-bottomed boats, breaking up the log-jams, or running the rapids.

Attractions for Sportsmen.

If the traveller has the explorer's instinct and wishes to see the forest as it looked when only the red man held sway, he should take a canoe and an Indian guide and camping outfit from Lake Temiskaming and follow one of the rivers that are tributary to the Ottawa till he reaches Lake Temagami. There he will find himself in a land where neither the settler nor the lumberman has penetrated. Its woods are the home of the moose, the caribou, the deer and the bear, and its waters are still sacred to the trout, the bass, the doré and other game fish. To the sportsman, Ontario's northland will readily appeal, affording him, as it does, opportunities that are almost unequalled in these days for securing big game. An area of 1,400,000 acres in this country including Lake Temagami, Lady Evelyn, Rabbit, Obabika, and others, has recently been withdrawn from settlement and constituted a

Forest Reserve.

timber reserve under the Forests Reserves Act. Hence this large tract will remain a wilderness and a perpetual resort for the tourist and sportsman.

In the more accessible regions of Muskoka, Parry Sound and Haliburton, the red deer is very plentiful, while the moose is quite common. Both may be hunted in season on procuring a license from the Provincial Government for a small fee.

READY TO START ON A CANOE TRIP.
From "Country Life in America."

Provincial Parks.

Algonquin Park was set apart in 1893 as a health and pleasure resort and forest and game preserve. It is a densely wooded tract of over 1,110,000 acres, situated in the District of Nipissing. Since it was established it has proven a veritable aslyum for wild life, and moose, deer, beaver and other game and fur-bearing animals have greatly increased in numbers.

Rondeau Park, in the County of Kent, was set apart in 1894. It contains about 5,000 acres, about one-half of which is covered with timber, thus preserving a remnant of the magnificent forest which once characterized this part of Ontario.

By setting aside an area of land under the name of Queen Victoria Niagara Falls Park the Government has given the people of Ontario and all visitors free access to and enjoyment of the great natural spectacle afforded by the Falls of Niagara. A board of commissioners appointed by the Lieutenant-Governor in Council administers the affairs of the Park with little or no cost to the public chest.

The Ontario Parliament Buildings, Toronto.

Political Institutions.

SYSTEM OF GOVERNMENT
SYSTEM OF EDUCATION.

ONTARIO has a very fine system of central government, with an elective Legislature and Cabinet Council responsible thereto, comprising the departmental heads. Every Minister is a member of the Legislature. The subjects that fall within the legislative authority of the Provincial Government are very numerous and affect immediately every man, woman and child in the province. Comfort and convenience, liberty and life, all the rights of citizens with respect to property, the endless matters that daily affect a community, are under the control of the provincial authorities.

The legislative powers of the province relate to the management and sale of public lands and the timber and minerals thereon ; administration of justice in the province; property, and the raising of revenue for provincial purposes ; the establishment, maintenance and management of prisons, hospitals, asylums, charities, etc.; tavern licenses, local works and undertakings, and generally all matters of a merely local nature.

The care of lunatics and idots is, in Ontario, undertaken by the Provincial Government, a burden which, in most countries, falls entirely or mainly on the municipalities. All these institutions are well equipped, and conducted on the most approved principles. There are six asylums for the insane in Ontario, located at Toronto, London, Kingston, Hamilton, Mimico, and Brockville, besides an asylum for idiots at Orillia.

The Provincial Government also maintains a reformatory for boys at Penetanguishene, an institution for the deaf and dumb at Belleville, and one for the blind at Brantford, besides a reformatory for women and refuge for girls at Toronto. In addition to this about $220,000 is spent annually in giving aid to hospitals and charities, and for the care and protection of neglected children.

There is no tax whatever upon the people of Ontario for the maintenance of the Provincial Government, the revenue being derived from the sale of Crown lands, timber and minerals, from liquor licenses and other fees, supplemented by a subsidy from the government of the Dominion. Not only is the Province free from debt, but has a considerable surplus to its credit.

Out of a total expenditure of $103,960,277.66 by the Government since 1871, the following sums might be fairly taken as contributions either for the relief of taxation, or for the improvement of the country :—

Education	$18,205,323 42
Toronto University, first grant	160,000 00
Hospitals and charities	3,526,591 30
Maintenance of Public Institutions	18,797,211 88
Surplus distribution, 1873	3,388,777 47
Distribution of clergy lands	931,382 86
Refunds land improvement fund	534,172 91
Agriculture and arts	4,358,809 70
Administration of justice	10,084,694 73
Aid to railways, including annuity repayments	8,304,901 12
Colonization roads	3,338,743 28
Municipal drainage	1,208,364 00
Swamp drainage	238,405 09
River, lake and bridge works	1,008,542 04
National parks since 1885	89,993 53
Public buildings—construction outlay	8,971,873 28
Repairs and maintenance since 1884	1,304,292 30
Total	$84,452,078 64

Ontario also possesses a very complete system of municipal self-government. Under this system the province is divided into city, town, township, and village municipalities. Each municipality annually elects a council to transact its business. The only direct taxes that the people of Ontario are called upon to pay are those imposed by the municipality. Municipal taxation, especially in rural districts, is, as a rule, quite moderate.

Education.

The Ontario system of education combines the best features of the systems of Great Britain, Germany and the United States, upon which it has been founded; and for completeness and excellence is probably unexcelled in any country. The complete system includes the Kindergarten, the Public or Common School, the High School and the University.

Education is practically free, attendance is compulsory, and the schools are national instead of sectarian. No class or sect is favored. The highest distinctions of the University are most frequently gained by the sons—and daughters too—of working men. The poorest boy or the poorest girl may reach by his or her own efforts the topmost rung of the ladder.

The work is presided over by a Department of the Government with a Minister at its head, who has a seat in the Legislature and is a member of the Cabinet. There are in all about 9,500 teachers, male and female, in the different grades of schools, while the number of pupils is about 500,000. The province is divided into counties, which are sub-divided into townships, and these again into school sections. In the centre of each school section there is a public school, which is presided over by the ratepayers of the section. These schools number upwards of 6,000. Though the Province of

Ontario is generally Protestant, there exists a Roman Catholic minority. In order to meet the demands of this church for combined secular and religious instruction, what is known as the separate school has been established, to which persons of that religion may send their children. Other religious bodies also have the privilege of establishing denominational schools, if desired. There are 250 Roman Catholic Separate Schools in the Province.

After going through the course of instruction in the Public School, as laid down by the Education Department, the pupil is ready for the High School. Every town or village of importance has one of these institutions. They form the connecting link between the common schools and the University, as the course of study culminates where that of the University begins.

Total grants for all Public, High and Separate School purposes	$743,142 33
Total grants for School of Science	37,050 58
Total grants for University of Toronto	35,964 14
Total grants for Mining Schools	42,069 45
Total grants for Agricultural Education	110,725 00
Grand Total annual grants for Education	$968,951 50

Universities.

There are several good Universities in Ontario, the principal being the University of Toronto, a teaching university with which are affiliated the following institutions, namely, University College (Provincial), Victoria College (Methodist), Wycliffe College (Anglican), the Ontario Agricultural College, School of Practical Science, two Medical and a Dental College, a Veterinary College and two Colleges of Music, etc. This University was founded in 1827. It has an endowment of over a million dollars, and an income of $85,000. Its students, male and female, number about 2,000. It also is undenominational.

The following universities have been established by various denominations: Ottawa University (Roman Catholic), Queen's University (Presbyterian), Trinity University (Episcopalian), The Western University (Episcopalian), Victoria University (Methodist), now federated with Toronto, Knox College (Presbyterian) and McMaster University (Baptist).

In addition to the above, a number of private and endowed schools and colleges are to be found throughout the Province for the students of both sexes, some of which are of a denominational character. Amongst these the Upper Canada College is well known. There is also a school of Technology, and a school of Art and Design, located in Toronto; a college of agriculture; two schools of Mining and three schools of Dairying.

Transportation.

RAIL AND WATERWAYS.

ONTARIO has 7,000 miles of steam railways. In this regard the southern portion of the province is particularly well supplied, being covered with a network of lines. These, in connection with the lake, river and canal navigation systems, afford exceptional facilities for internal communication. Residents in the settled portion of Ontario are in nearly all cases within easy access of a railroad and there are but few localities in which the farmer cannot reach a station with a load of produce and return to his home on the same day The principal railway systems are the Grand Trunk and the Canadian Pacific, two splendidly equipped roads with fine road-beds and rolling stock. The systems are not confined to Canada, but their ramifications extend to the United States as well.

A third system, not so well known as the above, but one that seems likely to play a very important part in the development of the country immediately north of the older settled portion of the province is the Ottawa, Arnprior and Parry Sound Railway. The route of this road runs for 264 miles directly across the province from the city of Ottawa, in the East, to Parry Sound, a port of the Georgian Bay, in the West, and parallels the main lines of the Canadian Pacific and Grand Trunk to the South. It connects, via the Canada Atlantic, with Montreal, Quebec, St. John and Halifax ; and with Boston, Portland and New York by American roads. It forms a short cut across Ontario from the Great Lakes and is thus a very direct route to tidal waters.

Since 1898 there have been incorporated by the Provincial Legislature twenty-five steam railway companies. With but a few minor exceptions, the proposed lines will be constructed in Northern Ontario, where they will open up for settlement large agricultural areas as well as permit the development of rich timber and mineral resources.

NEW RAILWAYS IN NEW ONTARIO.

The Ontario and Rainy River Railway is now completed from Port Arthur to Winnipeg, 263 miles of which passes through Ontario, opening up a great area of country hitherto more or less inaccessible.

The Manitoulin and North Shore Railway, ultimately intended to run from Meaford to Sudbury and the shores of Lake Superior, is under construction.

The Algoma Central Railway is also in process of construction, 50 of its 140 miles being finished at the time of writing, as well as some 25 miles of the Michipicoton Branch of the same line.

Recent railway legislation has steadily progressed towards more complete Governmental control, with a view to avoiding the evils of monopoly and preserving public rights, and in so doing to impede private enterprise no more than is necessary. The most radical measure in this regard has been the survey and partial construction of a line from North Bay to the agricultural

Entrance to the Welland Canal, Connecting Lakes Ontario and Erie.

districts at the head of Lake Temiskaming, by the Government, with the intention of constructing it as a Provincial work. This railway will touch Lake Temiskaming and permit the development of the rich agricultural and mineral region adjacent to that lake and its tributary waters. As settlement advances it is proposed to extend the railway to James Bay, thus opening a direct route from the capital of the Province to the northern seaboard, a project equally advantageous to new and to older Ontario.

The growth of the electric railway in Ontario within the past few years has been rapid and continuous. In the cities and more important towns the electric car has completely taken the place of the horse-car for passenger traffic. Not only so, but the system is rapidly extending itself into the rural districts, where it affords light or secondary railway facilities for the speedy transportation of passengers, farm produce and general light freight, and bids fair in the near future to add greatly to the wealth and prosperity of the Province.

Electric Railroads.

Niagara Falls, Ontario.

As has already been pointed out, the Great Lakes and the St. Lawrence River form the greatest system of inland waterways in the world. There is, however, a difference of level between Lake Superior and the tide-waters, amounting to 602 feet, giving rise to rapids between Lakes Superior and Huron, to the celebrated falls of the Niagara River between Lakes Erie and Ontario, and to the rapids of the St. Lawrence. To overcome these obstacles to navigation a fine series of canals have been constructed, fifty-one miles in extent, at a total cost of about fifty millions of dollars, as follows :

Inland Navigation.

The Welland system, connecting Lake Erie with Lake Ontario, twenty-three and three-quarter miles ; the St. Lawrence system, twenty-four miles ; and the Sault Ste Marie canal, three-quarters of a mile. By this means a continuous stretch of inland water communication is afforded through Lakes Superior, Huron, St. Clair, Erie and Ontario, and

Fort William, Ontario.

Sarnia, Ontario.

the River St. Lawrence to the Atlantic, a distance from Port Arthur of 2,260 statute miles. Under the present scheme of enlargement, now almost completed, these canals will accommodate vessels of 14 feet draught throughout their entire course. The principal traffic of the route consists ot grain and lumber. There are also several internal canal systems.

Harvesting on an Ontario Farm.

Ontario's Agriculture.

NUMBER OF FARMS IN ONTARIO - - -	*175,000*
VALUE OF FARMS IN ONTARIO - -	*$1,000,000,000*
NET PRODUCTS OF ONTARIO FARMS - -	*$ 158,274,403*

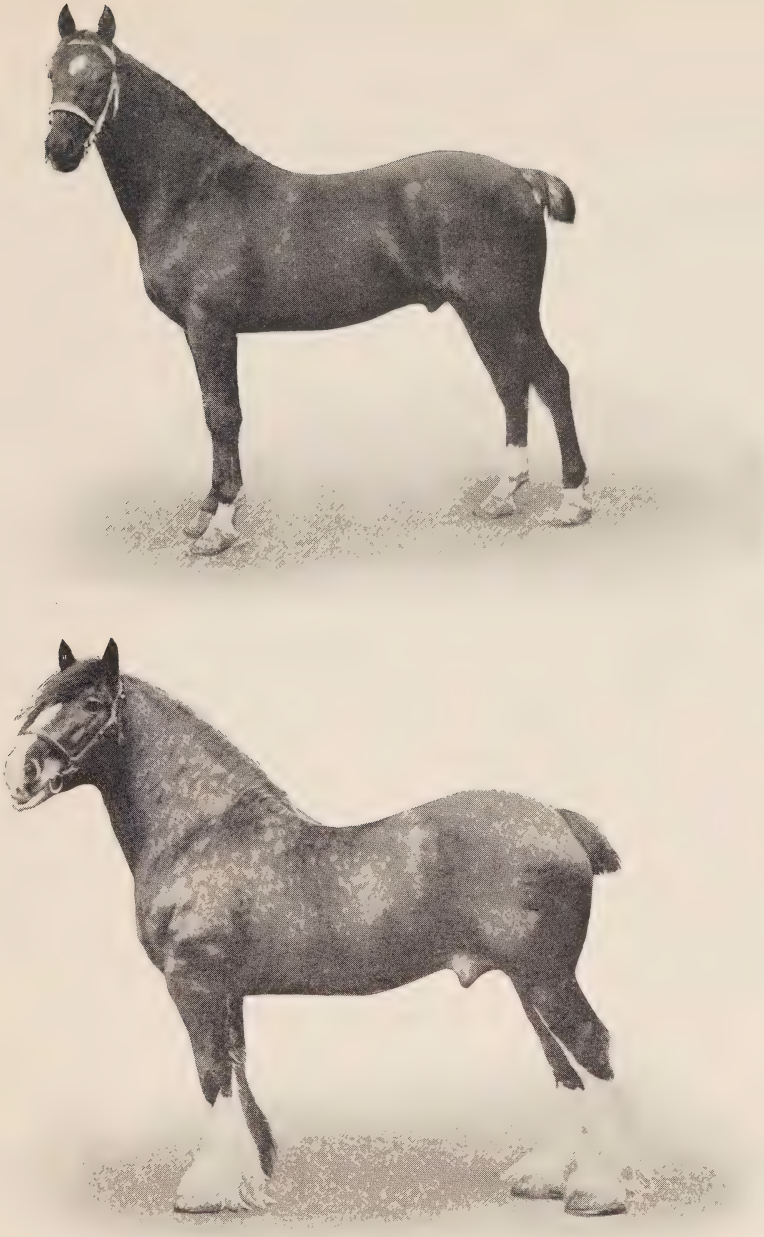
SOUTHERN ONTARIO is pre-eminently an agricultural country. Its soil and climate are in all respects such as are required to produce the best results both from the growing of cereal crops and the raising of live stock. One is not surprised therefore to find that the majority of the people of Ontario are engaged in farming as a means of obtaining a livelihood. When one considers the magnitude of the industry, the amount of capital there is invested in it, and the value of the annual output of the farms of Ontario, as compared with other industries, it becomes apparent that agriculture is paramount in point of importance. Statistics show that there are twelve and a half million acres of land under cultivation, and that there is invested in lands, implements, buildings and stock, no less a sum than a thousand millions of dollars, which is a far larger sum than lies invested in the manufacturing industries of the whole Dominion.

THE IMPROVED CONDITION OF FARMERS.

That farming is being conducted on a more extensive scale than formerly is evident from the table herewith given :

Farm lands have increased in value since 1897 by	$20,673,000
The buildings used for farming purposes have increased by	13,398,000
Farming implements by	6,025,000
Live stock by	29,625,000
The area under crop of all kinds (including pasture) has also increased in the past four years by	129,603 acres.
The increase since 1891 is	934,059 acres.

The Ontario farmer can no longer compete with the West in the growing of grain crops for export, even though it is admitted that as good a sample and as high an average yield may be obtained in this Province as in any part of North America. The economic conditions in which he is placed demand that he shall turn his raw material into a finished product. Consequently he is now feeding his coarse grain to live stock instead of selling it in the markets ; is producing butter and cheese, meat, poultry and fruit for the British market, and breeding high class stock to replenish the herds and flocks of the United States, as well as other parts of the Dominion. Not only does he thereby



Light and Heavy Types of Ontario Bred Horses.

receive a better cash return, but he also maintains and increases the productiveness of his land, by restoring to it that which is taken from it.

TOTAL VALUE OF LIVE STOCK, POULTRY, EGGS, ETC., SOLD IN 1900 and 1901.

From the report of the Bureau of Industries, it is estimated that the sale of stock for the years 1900 and 1901 is as follows :—

	1900.	1901.
Horses	$ 3,774,480	$ 4,347,582
Cattle	18,017,989	20,286,963
Sheep	2,872,609	3,103,513
Swine	15,800,799	17,548,490
Poultry	1,176,740	3,495,999
Eggs	2,850,000	2,850,000
Total	$44,492,617	$51,632,547

Stock Raising.

The breeding and feeding of stock is a highly important branch of Ontario agriculture, and is regarded as the key to successful farming. Ontario is particularly well suited for the stock raising industry. Its invigorating climate and abundance of pure water, the nutritive qualities of its roots and grasses and its remarkable freedom from disease especially fit it for the raising of the finest of cattle. Pure bred animals from its studs, herds and flocks, have been shipped to the United States for many years past and have brought a high price in that country. In addition to this, Ontario supplies large numbers of pure bred animals to the sister Provinces of Manitoba, the North West and British Columbia, and it may justly claim to be the greatest breeding ground in North America, for animals of this description. Nearly all the breeds of cattle prominent in Great Britain are represented.

During the past few years, Ontario's export trade in live stock with the United States has grown in a very marked manner. At the present time in all classes of live stock including horses, the demand is excellent and prices satisfactory.

Sheep.

Ontario has been pronounced to be the ideal home of the combing wool sheep. Perhaps in no country are sheep liable to so few diseases, and all the leading breeds do well. The climate is as nearly an ideal one for the successful raising of this class of stock as can be found anywhere. United States flockmasters look to Canada for breeding stock, knowing that sheep raised on our soil have, similarly with cattle, the stamina and quality necessary to improve their flocks when fresh blood is required.

Horses.

Ontario is noted for the production of a fine class of horses. During the Boer War a considerable number were purchased in the Province for army purposes. They were pronounced to be unusually sound in wind, rejections on this score not exceeding two per cent. At the front

they made an excellent showing for stamina and intelligence, and their powers of endurance were notably superior to all others.

In conjunction especially with dairying, the bacon hog industry has rapidly come to the front as one of the most profitable branches of Ontario agriculture. The by-products of the dairy are now largely used as food for pigs, and great numbers can be raised at a minimum of cost and sold at paying prices.

Pork and Bacon.

The success of Canadian bacon and hams in the British market is largely due to the fact that the quality of our hogs is superior to that of the corn fed hog of the Western States. By the opening up of pork-packing and bacon-curing establishments in Ontario a steady market for light young hogs is assured all the year around. These are located at Toronto, Hamilton, Ingersoll, Brantford, London, Stratford, Peterboro, Collingwood and Palmerston. The yearly output for Toronto alone is estimated at $3,000,000. Immense strides have been made in the hog-raising and bacon-curing industries within the past ten years. In 1890, the value of the exports of Canada in this line of production amounted to only $646,000, whereas in 1902 it had reached $12,404,000.

Poultry.

The business of poultry-raising is undergoing great development at the present time, and is capable of much wider expansion. Turkeys have been shipped to England for years, and considerable shipments of chickens are now being made. The export trade in eggs is also considerable.

Estimated value of Dairy Products for 1900 :

Cheese	$13,023,025
Butter, creamery and dairy	8,500,000
Milk and cream	7,500,000
	$29,023,025

Dairying.

Dairying is one of the foremost branches of Ontario agriculture. Ontario exports more cheese than the whole of the United States, and on the British market the quality of the product is admittedly superior. Entering late into the race when it seemed almost won by the United States, Canada has wrested from that country the first place on the market by the superiority of its product Much of the cheese consumed by the British public is made in Ontario, although doubtless sometimes sold to the consumer as the home article. At the World's Columbian Exposition, Ontario cheese swept all before it, taking a total of 261 awards, and in many cases securing 99 out of a possible 100 points. In this department Ontario and Quebec combined captured practically all the awards, leaving but a small portion to the rest of the American continent.

Cheese Factories

Ontario cheese is made under the factory or co-operative system and not in the homes of the farmers. The cheese makers managing these factories have for the most part received their training in Government Dairy Schools. By these methods a superior and uniform product is secured.

The development of the cheese industry in Ontario has been remarkably continuous and rapid. In 1864 the first factory was erected. Prior to that time about 3,500,000 lbs. were made annually in the farm dairies. Since then the growth has been as follows :—

1871—Amount made in factories			12,500,000 lbs.
1881—	"	"	35,000,000 "
1891—	"	"	81,924,042 "
1895—	"	"	109,230,340 "
1899—	"	"	123,324,000 "
1901—	"	"	134,942,500 "

The amount of Canadian cheese, of which probably two-thirds comes from Ontario, exported to Great Britain in 1902 was 200,392,350 lbs., valued at $19,620,239.

Butter.

The butter industry is not so far advanced as the cheese manufacture, chiefly owing to the lack of proper facilities for placing the product on the world's market in prime condition. Ontario is capable of producing as fine a quality of butter as is produced anywhere, and with the proper means of manufacture, packing and transportation, is beginning to compete successfully in the British market.

VALUE OF ORCHARD AND GARDEN CROPS, 1900, $12,000,000.

Fruit.

All the fruits usually grown in the temperate zone can be produced successfully in Ontario, and the province contains a larger area where suitable conditions of soil and climate prevail than any other province of the Dominion. For quality and flavor Ontario fruit is unsurpassed. The fruit growers now produce ample supplies for the home market, and fruit is everywhere a common article of diet and is abundant the year round. The export trade is, however, capable of much greater development.

Apples.

Ontario is justly celebrated for its apples. They constitute the staple and principal fruit crop, and can be grown successfully over a very large part of the province. The farther north the apple can be produced the better is the flavor and keeping quality of the fruit. Beginning with the valley of the St. Lawrence above Brockville, a good apple country is found which extends to Niagara at the western end of Lake Ontario, a distance of 288 miles. In all the counties bordering on Lakes Ontario, Erie and Huron, and indeed in all the counties of the west, apples grow to great perfection. The orchards of the Huron tract alone will, in a favorable

year, produce fully 500,000 barrels. A number of varieties of early and late apples are grown, and considerable attention is being paid to the production of good keepers for the European market, where hundreds of car-loads are shipped annually.

Vine-yards and Orchards.

In several sections of Ontario fruit growing has become a special industry and has grown to very large proportions This is particularly the case in the Niagara section and in the counties bordering on Lake Erie. Here the influence of the great lakes renders the climate milder even than in districts lying much farther south, and tender fruits such as peaches and grapes grow to perfection in the open air, producing enormous yields. Vineyards and orchards varying from 10 to 100 acres in extent are seen everywhere.

Fruit Ready for Shipment at Niagara-on-the-Lake, Ont.

In the narrow strip of country bordering Lake Ontario from Hamilton to Niagara, pears, peaches, plums, grapes, cherries, quinces, apples and small fruits are very extensively grown, and make this the most important fruit section of the province. From this district fruit is shipped by lake and rail to Toronto, Montreal and other eastern points, and as far west as Manitoba, in addition to pears and apples exported.

Grapes grow prolifically in these districts, the crop averaging fifteen million pounds annually from about three million vines. A portion of this crop is used in the native wine-making industry.

Summer Fallowing, an Ontario Farm Scene.

The Burlington and Oakville districts, near the head of Lake Ontario, are famous for apples, pears and plums, and also for small fruits. The Lake Huron and Georgian Bay sections produce besides apples, enormous quantities of plums.

Another important fruit section exists in Prince Edward County, at the eastern end of Lake Ontario, where for many years a great variety of fruits has been grown. Farther east, along the St. Lawrence, little fruit is grown except apples, as early frosts render tender fruits precarious. The smaller fruits, such as strawberries, raspberries, cherries, currants and gooseberries do well in almost any section of the province.

Small Fruits.

Ontario apples have for years been exported to Great Britain in large quantities. During the last few years, shipments of pears have been made, and have met with great success on account of their size, appearance and flavor. Experiments recently conducted by the Government have proved that it is quite possible to send delicate fruit to England in perfect condition. Shipments of pears, peaches, early apples and grapes, specially selected and packed and placed in cold storage on the railway and steamship have been successfully made. The fine appearance of this fruit excited great interest in England, many finding it difficult to realize that it could be produced in the open air. To make this business a practical success, a continuous system of cold storage is involved, lasting from the time the fruit is picked in the orchard until it reaches the consumer. This is a difficult problem but its solution opens a new era for the fruit industry of Ontario.

Fruit Exports.

In the province orchards, vineyards and gardens occupy about 400,000 acres. There are now six million apple trees of full bearing age and about four million younger trees. The yield of apples is estimated to be between fifty and sixty million bushels per year. Some thousands of acres are planted with peach trees, and 11,000 acres are devoted to vineyards.

The growing of fruits and vegetables for canning factories has become of recent years an important industry. Tomatoes are extensively grown for this purpose. In this convenient form, these products find their way to many distant markets.

Canning Factories

The evaporating of apples is extensively carried on in some localities, and large quantities are exported.

Other specialties in connection with horticulture are, the growing of nursery stock, the production of flowers for sale, and market gardening. Large areas of land in the neighborhood of the principal cities and towns are now being devoted to the two latter industries.

VALUE OF FIELD CROPS FOR 1900.

The following table gives the production and estimated value of the field crops for 1900 as compiled by the Bureau of Industries :—

Field Crops.	Bushels.	Estimated Value.
Fall wheat	23,369,737	$15,517,505
Spring wheat	6,940,333	4,684,725
Barley	16,909,751	6,577,893
Oats	89,693,327	22,768,732
Rye	2,357,635	1,143,453
Peas	14,058,198	8,027,231
Buckwheat	1,874,261	819,052
Beans	820,373	817,912
Potatoes	21,476,439	5,605,351
Mangel-wurzels	24,728,525	1,978,282
Carrots	3 460,123	433,640
Turnips	59,330,395	5,933,040
Corn for husking (in the ear)	27,093,561	8,588,659
Corn for silo and fodder (green) tons	2,147 532	4,295,064
Hay and clover, tons	3,133,045	26,568,222

A Fertile Soil.

The farm lands of Ontario are as fertile as those of any country. A large proportion of the land in the southern part of the province is good but, as may be supposed, varies to some extent in different sections. The character of the country is, as a rule, gently rolling, and the nature of the soil is usually clay, clay loam, or sandy loam. While in some European countries larger yields are obtained, it is as a rule at a relatively greater cost. There is no doubt, however, that the lands of the province are not producing nearly to their full capacity. Neither is there any doubt that the productive capacity of the soil might be greatly increased, by more thorough and systematic farming, by more extensive underdraining, more care in crop rotation, and by feeding more stock on the farms.

Wheat.

Winter wheat was at one time the principal grain crop. Now it is no longer raised for export, although a considerable quantity is grown for home use. About a million acres of land are annually devoted to winter wheat, and the average yield is 20 bushels to the acre. Yields of thirty and forty bushels to the acre are not uncommon, where the fertility of the land has been maintained and the soil properly prepared. Of spring wheat, between three and four hundred thousand acres are grown, and the yield averages about 16 bushels.

Oats, Barley and Peas.

Over two million acres of oats are planted every year in Ontario, and the average yield is about 35 bushels per acre. Barley yields between twenty-five and thirty bushels on an average and half a million acres are occupied by that crop. The six-rowed variety is usually grown.

One of the most important crops the farmer grows is peas. Pea meal is

a valuable part of the grain ration both for milk, and beef and pork. About 750,000 acres of peas are grown, yielding an average of 20 bushels.

Labor Saving Machinery.

Sixty years ago all grain crops had to be harvested with the sickle. To-day the modern harvester will cut and bind the heaviest crop of grain and do the work in the most perfect manner. Similarly, in the early history of the country, all the grain was threshed with a flail, and the work took the whole winter to accomplish. Now the threshing machine, which travels with its gang of hands from farm to farm, threshes and cleans the grain ready for market, besides doing the work as fast as two men can fork the sheaves into it.

Grain Production in 1899.

Oats are exported in large quantities to Great Britain and Ireland, and oatmeal to Scotland and England. Most of the winter wheat grown is milled in Ontario, but some spring wheat is exported. Ontario barley is superior to the best barley grown in the United States, and is eagerly sought for by the United States malsters; but owing to the high protective tariff very little finds its way to that country. Peas are exported largely to Great Britain and the Continent. Canadian peas are considered the best sample grown in any country in the world.

Hay Harvesting.

The kinds of hay commonly grown are timothy grass, red clover and alsike, and occasionally lucerne or alfalfa. A large quantity of clover seed is exported to Europe. Hay is cut during the first week in July. Hay dries fast in the Ontario climate. With good weather, it may be raked into cocks the same evening as cut, drawn to the barn the following day and stored away in the hay mow. There is no department of farm work more replete with labor-saving contrivances. The mowing machine has been in use for many years, but of late it has been greatly simplified and rendered much more effective. For raking the hay, the "sulky" rake is now in general use. Another form of rake is one with a side delivery, which throws the hay into continuous windrows, which is of great advantage where a hay loader is used. Another useful implement is the tedder for shaking out the hay, and the horse fork for delivering it to the mow.

In a similar manner the amount of manual labor has of recent years been greatly reduced in nearly all departments of the farm. Not uncommonly, "sulky" plows, harrows and cultivators are employed, on which the farmer sits while driving, just as he does on his reaping machine. The modern steel frame windmill is very commonly used for the pumping of water, cutting of food for stock, etc. With the aid of such devices as these the farmer is enabled to dispense, to a considerable extent, with hired help.

Root Crops.

Roots are among the most valuable stock feeds, and are widely grown. The average yield of turnips is 422 bushels per acre; of mangels, 437 bushels; of carrots, 350 bushels; and of potatoes, 115 bushels. About 350,000 acres are devoted to these crops.

A Rural Highway.

So important a place in Ontario agriculture has the raising and feeding of live stock assumed that one of the farmer's most important studies is to provide the most economical fodder supply. Fodder is necessary during the the winter months when the cattle are stabled, and also during the late summer months when pastures are liable to fail on account of dry weather.

Ensilage.

In addition to the ordinary root crops, he usually grows a few acres of "Indian" or fodder corn, which is cut before full maturity is reached and stored in the silo. This is the surest fodder crop he can raise. No matter whether the season be wet or dry a fair crop is assured. The amount of stock that can be kept on a farm where much corn fodder is raised is relatively very large, and the area devoted to the crop is continually increasing. Nearly all stock men grow and feed more or less corn. In dairying, especially, ensilage is a distinct factor in making the business a paying one. Corn is planted about the end of May with a seed drill in rows about 30 inches apart. It is cut about the first week in September. It is either put up in large shocks in the field, where it remains until wanted for feed, or, better still, it is chopped into pieces about an inch long and stored in the silo.

Modern Farm Buildings.

The silo is an air-tight chamber built of concrete or wood, either inside or outside the barn, which preserves the corn in a fresh and succulent condition.

The Silo. From the silo, the fodder can be conveniently fed to stock as required. No other crop will produce the same amount of bulk and weight to the acre. It grows from six to ten feet high and produces from ten to fifteen tons per acre on an average, while occasionally much larger yields are obtained.

Ontario is well adapted to the keeping of bees, and the industry is profitably pursued by those engaged in it. There are 200,000 hives in the province

Honey. and 8,000,000 pounds of honey of very fine quality are produced annually.

Hops, beans and tobacco are also specialties in some sections.

The summer season is very favorable to farming operations in Ontario. As soon as the winter breaks up, the busy season for the farmer commences.

Farm Operations. The frost is usually out of the ground by the beginning of April, and by the middle of the month the land is sufficiently dry for spring plowing to commence, and as a rule seeding is pretty well through by the first week of May. After the first of June the summer is short and hot. The crops rapidly grow to maturity and have to be harvested in quick succession. First hay, then barley; closely followed by wheat and oats; and the farmer works from daylight to dark. The wheat harvest commences about the third week of July in the most advanced districts, and the bulk of the crop is harvested and in the granary by the second or third week of August.

The spring rains are usually abundant, and sometimes extend on into June. The summer months, according to the English climate, would be considered exceedingly dry, every day being one of brightness and sunshine. During the months of harvest, the weather is usually dry and settled. Of course seasons vary somewhat, but grain and fodder crops seldom suffer from an excess of moisture.

The apple and the root crops have been well secured before the middle of November, and for the remainder of the month the farmer is engaged in plowing the land intended for seeding the following spring. The weather is then liable to turn cold at any time, and frost sufficient to stop the plow is in order at short notice. After the close of November, outside work is practically at an end, and from then until the beginning of April the farmer has but comparatively little to do, except to attend to his stock, or take his produce to market on his sleigh over the good roads which the snow provides for him. If the Ontario farmer is hard worked in summer the winter season is one of comparative leisure, and it is then that he indulges his social inclinations.

The climate necessitates that stock should be housed and fed in winter time. The stables for cattle are usually built under the barn, and are known as basement stables. They are constructed of brick and stone or concrete and serve as a foundation for the barn, a spacious wooden structure in which the cereal crops are stored. This is found to be a very convenient arrangement as food and bedding can easily be supplied to the stables below.

Barns and Stables.

The farmers of Ontario are effectively and actively organized. Each department of the industry is represented by an association which advances its interests. The dairymen, the fruit growers, the poultry men, the stockmen the horse breeders, each have their association. These are educative in their object and receive liberal aid from the Provincial Legislature. They meet at stated times and their members read papers, deliver addresses and engage in discussions. The information thus gathered is afterwards printed by the Government and liberally distributed among the farmers for their information in the form of reports.

Farmers' Organizations.

The Farmer's Institutes constitute one of the best means of furnishing help and information to the rank and file of the farmers. These institutes have been organized in almost every township. Each year they hold a series of meetings or conferences, which are attended by delegations of speakers sent out by the Department of Agriculture, who deliver practical addresses on farming in all its branches, and give information as to the latest and most approved methods.

Every county in the province has from one to three district agricultural societies, and the territory is again sub-divided between township and horticultural societies. These societies are organized under Government auspices and receive state aid. It is customary for each society to hold an annual exhibition and to offer prizes for products. Important exhibitions of this kind are held in Toronto, London, Ottawa and several other centres. The horse-breeding industry is especially represented by an annual Horse Show, held in Toronto. Every year a large and representative exhibition of live stock, known as the Provincial Winter Fair, is held in the city of Guelph. Fat stock, dairy cattle, and live and dressed poultry are exhibited. Ontario possesses one of the finest and best equipped agricultural colleges on the American continent. The Ontario Agricutural College and Experimental Farm is an institution founded and maintained by the Provincial Government, under the direct control of the Department of Agriculture, for the express purpose of providing the sons of farmers with an education exactly suited to the requirements of their calling. Unlike American colleges of the same class it

Agricultural Exhibitions.

Ontario Agricultural College.

is devoted to agriculture only. The course of training is a combination of practical with scientific work. In addition to this, dairy schools have been established at Guelph, Strathroy and Kingston, where the student may secure a thorough course in cheese and butter-making, such as will fit him to undertake the management of cheese and butter factories.

Experiment Stations.

An important feature in agricultural development in Ontario during the past fifteen years is the establishment of experimental farms and experiment stations. Associated with the Experimental Farm is the Ontario Experimental Union. By its efforts a system of co-operative experiments has been established among the farmers. The number of individual experimenters is over two thousand. By this means, new and improved varieties of grains, etc., are tested and introduced from seed distributed from headquarters. In the interest of fruit growing, the Government has likewise established thirteen fruit experiment stations, the object being to test different varieties of fruit and determine their suitability for the locality represented.

By these agencies many problems of vital importance to the farmer have been solved and a mass of information obtained that has helped him to make his business more profitable. The whole of this important work is presided over by a special department of the Provincial Government—the Department of Agriculture, having a practical farmer at its head, who has a cabinet portfolio.

ONTARIO AT THE PAN-AMERICAN EXPOSITION, BUFFALO, 1901.

The following is a partial statement of the prizes won by Ontario's live stock and other products of agriculture at the Pan-American Exposition :

	Ontario.	All Canada.	United States.
Cattle :—			
Cash	$1,738 40	$3,151 60	$4,368 40
Medals and Sweepstakes	Six.	Eleven.	Nine.
Sheep :—			
Cash	1,743 75	1,952 50	1,365 62
Medals and Sweepstakes	Five.	Six.	Seven.
Swine :—			
Cash	447 50	447 50	165 00
Medals	Four.	Four.	One.
Horses :—			
Cash	750 00	1,022 50	857 50
The medal for the best mare of any breed came to Ontario, and also two other medals.			
Poultry :—			
Cash	1,100 00	1,100 00	1,200 00

Horticulture :—The Ontario fruit exhibit stood first in regard to quality, in comparison with the various States of the Union, but second to New York State in the number exhibited. Ontario received the gold medal for "general display of fruits of superior excellence."

Cheese :—In all cases Ontario's export cheese scored high. The only gold medal awarded came to Ontario.

A Settlers Farm and House in Northern Ontario.

Northern Ontario

A FIELD FOR CAPITAL AND ENTERPRISE
PROGRESS OF DEVELOPMENT
FARM LANDS FOR SETTLERS.

NORTHERN ONTARIO, or "New Ontario" as it is sometimes called, extends northward and westward from the older settled portion of the Province to James Bay and the Albany River. Its vast extent is hard to realize, comprising as it does an area of about 140,000 square miles, or 90,000,000 acres, a considerably greater territory than the settled portion of Ontario. It is divided into the following districts: Nipissing, Algoma, Thunder Bay, and Rainy River. Between these districts and the older portion of the province, forming what might be called the intermediate region, are the districts of Muskoka, Parry Sound and Haliburton.

Northern Ontario, taken as a whole, cannot be considered as a farming country, yet it has the advantage of possessing large areas of farming land, as fertile as any in the Province and capable of supporting in the aggregate a large population. The more accessible of these sections are already partly settled, while others are without means of communication, and too remote to be available at the present time.

AGRICULTURAL LANDS EXPLORED.

	Sq. Miles.	Acres.
Nipissing	3,000	1,920,000
Algoma	17,500	11,200,000
Thunder Bay	4,000	2,560,000
Rainy River	600	384,000
	25,100	16,064,000

Allowing 200 acres to each head of a family, the above acreage would accommodate 80,320 families, and allowing 5 to each family, this would represent a rural population of 401,600 souls; but assuming that the country is capable of supporting, as no doubt it will be in the future, a population equal to the same area in the older parts of the Province, it will ultimately maintain a population of over 1,000,000 people.

It is but a few years since New Ontario was practically an unknown territory, visited only by the lumbermen and a few adventurous mining prospectors. During the last few years, however, a great change has been wrought, and New Ontario is fast becoming an important factor in the production of wealth, agricultural and otherwise. With the creation of the great manufactur-

ing industries at Sault Ste. Marie, the building of the Algoma Central, the opening up of the iron mines in the Michipicoton and other districts farther west, the working of the rich copper deposits along the north shore of Lake Huron, followed by the construction of the Government railroad from North Bay to the land settlement north-west of Lake Temiskaming, and with the rapid increase of settlers in the Temiskaming district, Rainy River district, Western Nipissing, and in the southern part of Algoma, as well as in the Thunder Bay district, New Ontario is in truth pulsing with a new life. So popular is the country proving with people who are looking for new homes that the suitable land now available is being so rapidly taken up that it is the intention of the Government to survey this year a larger number of townships than for many years past, and these townships will be located in territory that has first been found suitable for agricultural purposes.

Population.

There have been located and sold in New Ontario, during 1901, according to the returns of Crown Lands agents, farms of from 100 to 160 acres each to the number of 2,541, amounting to three hundred and thirty thousand acres, representing a population of nearly 10,000. These official figures do not, however, fully represent the total influx of people into New Ontario.

The population of the new northern districts is shown by the following table taken from the Dominion census :—

	1891	1901	Increase
Muskoka and Parry Sound	6,919	45,356	38,437
Nipissing	1,791	36,552	34,761
Algoma	7,018	63,669	56,651
Total	15,728	145,577	129,849

An increase of 827 per cent.

Another evidence of growth in population is to be found in the towns and villages in the newer districts, some of which have come into existence since the last Dominion census was taken :—

Towns and villages.	Population, Dominion Census, 1901.	Towns and villages.	Population, Dominion Census, 1901.
Gravenhurst	2147	Sudbury	2027
Bracebridge	2479	Thessalon	1205
Huntsville	2152	Sault Ste. Marie	7169
Parry Sound	2884	Port Arthur	3214
North Bay	2531	Fort William	3633
Sturgeon Falls	1418	Rat Portage	5202

Many of these towns are the centres of important industries, which give employment to many men. They are also the commercial centres, from which equipment and supplies are obtained, and the headquarters from which the

business of the country is transacted. Thus Mattawa is a centre for the lumber industry of the Upper Ottawa; North Bay a railway centre; Sturgeon Falls has an agricultural country at its back; Sudbury is the seat of the great nickel and copper industries of Ontario; Sault Ste. Marie, the headquarters of the Clergue industries, while Rat Portage is the centre of the Lake-of-the-Wood gold fields, and of extensive lumbering, flour and saw-milling industries. Port Arthur and Fort William in the Thunder Bay District, at the western end of Lake Superior, are both ports for lake commerce, and also railway centres. Three railways converge at these points, and grain from the western prairies is here transferred to lake vessels in large quantities.

Industrial Centres.

	Post offices in 1881.	Post offices in 1901.
Algoma	39	125
Nipissing	6	60

Among the more important areas now available for settlement are the following:

The Temiskaming Country.

The Temiskaming settlement on Lake Temiskaming, on the upper Ottawa river, occupies a large valley comprising about 1,000,000 acres of choice arable land, about half of which has been surveyed and laid out in townships. The land, which rises abruptly from the lake shore to a height of about fifty feet, slopes gradually towards the Height of Land, which is about fifty miles distant from the lake. The soil is fully equal in fertility to that of any portion of Southern Ontario, being a rich clay, with a surface of black vegetable mold.

The district is well watered with numerous streams and rivers, the most notable of which are the Blanche River, navigable for 30 miles; the Montreal and the Wabbi Rivers.

The country is densely wooded with spruce, cedar, birch, balsam, poplar, tamarack (larch) and other trees. The local market for the timber is such that the settler is often enabled to make not only a living but a handsome profit in clearing his land.

The Provincial Government has undertaken the construction of a railway running from North Bay to this section, which, it is expected, will be completed in 1904. The land in the various localities in the district of Nipissing is for sale at 50 cents per acre, subject to settlement duties.

The Temiskaming country forms the southeastern extremity of the great clay belt, the existence of which was established by the extensive explorations undertaken by the Provincial Government in 1900. Beginning at this point it stretches in a northwesterly direction, with a slight break at the Height

of Land across the districts of Nipissing and Algoma and into Thunder Bay district, comprising a total area of some 24,500 square miles, or 15,680,000 acres. This almost unbroken stretch of good farming land is nearly three-quarters as great in extent as the whole settled portion of the province south of Lake Nipissing and the French and Mattawa Rivers. Another important fact established by the explorations is that the climate in this northern district presents no obstacle to a successful agricultural settlement. The absence of summer frosts noted by explorers, and the growth of all common vegetables at the Hudson Bay posts, completely dispels the erroneous impression that its winters are of arctic severity, and its summers too short to enable crops to mature. The following comparison of the monthly records of mean temperatures from April to October, kept at Moose Factory by the Hudson Bay Company in the year 1901 with fifteen years' observations at Edinburgh may be of interest :

The Great Clay Belt.

MEAN SUMMER TEMPERATURES.

Months.	Edinburgh, Deg. above zero.	Moose Factory, Deg. above zero.
April	44.5	34.6
May	48.8	47.6
June	54.9	56.0
July	58.0	62.7
August	57.5	61.3
September	52.9	52.7
October	46.1	38.0

It will be seen that the five summer months are just as warm at Moose Factory as at Edinburgh, while April and October are very little cooler. The remaining five months are much colder, but while the winters of Northern Ontario are much colder than in Scotland, they are not excessively severe as compared with many well settled districts in Canada and the United States.

The Rainy River Country.

In the Rainy River Valley, which is in the extreme western part of the Province, settlement is progressing with almost equal rapidity. The settlers who are going into the Rainy River Valley differ from those in Temiskaming, in that while the latter are being drawn mostly from Old Ontario, the former are farmers from the United States, who have discovered the advantages offered by the Rainy River Valley, and they are pouring in there in large numbers. The building of the Canadian Northern Railway through the valley has contributed not a little to the development of the district.

The luxuriance of the natural vegetation found in the Rainy River Valley is evidence of the great fertility and richness of the soil. Wherever the country has been fire-swept, and the timber destroyed, it displays a rank

Pioneer Road-Making, Through Pulp-wood Forest, Temiskaming District.

growth of wild clover. Native grasses, peas, and vetches flourish abundantly, and wild fruits grow in profusion. All the grain and grass crops produced in older Ontario, including fall and spring wheat, barley, peas, oats, etc., do well, and field and garden vegetables yield heavily. Hay always yields an abundant crop and clover attains a very vigorous growth.

The land is for the most part covered with timber, much of which is commercially valuable, and can be disposed of by the settler. Lumbering operations are carried on extensively on Rainy River and Lake-of-the-Woods, and several hundred men find employment during the winter in this way.

The lumber and timber supplies of Manitoba are largely drawn from this district. There are in various localities rich mineral deposits of iron and gold. There is, accordingly, considerable demand for labor. Fort Frances, Emo and Boucherville are flourishing towns.

Other Sections.

Another section of New Ontario that is quietly and gradually developing is that at Wabigoon, containing a number of townships centering at Dryden. Situated midway between Port Arthur and Winnipeg, this settlement is excellently located as regards markets. The Government explorations or 1900 showed that there were millions of acres of good agricultural land in the tract.

One of the finest sections in New Ontario, and one which is being rapidly filled with a hardy and thrifty class of settlers, is that district lying between Sturgeon Falls and Sudbury—the district known as the French River Valley. The soil is very productive, and for many reasons the district is conspicuously adapted for dairying and the raising of cattle and sheep. There is a splendid local market for all produce at Sudbury, Sturgeon Falls, Warren and other growing towns.

In the districts of Muskoka, Parry Sound, Haliburton, around Thunder Bay on Lake Superior and especially north of the Georgian Bay in the Algoma district, much excellent land exists. For the most part the country in these sections is broken up by ridges of rock, but between these and protected by them, stretches of arable land often unbroken for thousands of acres wind in and out. Everywhere lakes and rivers abound and constitute a marked feature.

Timber.

New Ontario is thickly timbered, except where fire has passed over it. With the exception of some tracts of hardwood and pine in the southern limits, most of the timber is what is termed "pulp wood" and is not difficult to clear.

Climate.

The climate of Northern Ontario is healthful and invigorating. While the winters are undoubtedly cold, they are probably not as severe as those of Manitoba, on account of the moderating influence of the forest growth. While Winnipeg is on the 50th parallel of latitude, the Temiskaming country lies south of the 48th; the Rainy River Valley, south of the 49th; Southern Algoma and Southern Nipissing, just north of the 46th; while the 49th, which is the southern boundary of Manitoba, passes through the centre of the Great Clay Belt. In summer the weather is slightly more temperate than that of Southern Ontario.

A Fine Grazing Country.

Northern Ontario will grow to perfection as many varieties of grasses, grains and vegetables as grow anywhere, and grow them well. In cereals and grasses, its virgin soil produces crops which exceed in yield and quality the most favored section of the United States, and even the average of Ontario generally. It is a typical country for the production of mutton and beef, cheese and butter. Even its rocky bluffs—where these exist—clothed as they are with a vigorous growth of timber, protect the pasture land of the valleys, where cattle and sheep may roam and graze for seven months of the year, and are not, therefore, without their compensating advantages. The sheep is exactly adapted to Northern Ontario, and the supreme excellence of the mutton raised in this region is a matter of note. As a dairy, stock and sheep raising country it has all the advantages of cheap land, good transportation facilities,

rich soil, good water, and cheap building material, while its climate is unexcelled for the production of vigorous stock and vigorous men.

For the settler of limited capital New Ontario offers advantages quite surpassing those of the Western States or of the Canadian Northwest. Most of the lands now open for settlement are wooded, and during the last few years there has been a noticeable increase in the value of timber other than pine. In the earlier days pine alone was marketable, the other trees being regarded as incumbrances, to be got rid of as speedly as possible. Spruce. poplar, and other trees furnishing the raw material for paper, are now in great demand, and the settler having such timber upon his lot can find steady employment in cutting and hauling these woods to the railways or to the waterfront for shipment, where a good price will be given for them. Hardwood is coming very largely into use in building operations for flooring and finishing, and in furniture, and its consumption is increasing very rapidly In place of burning off the hardwood in huge log heaps, as used to be done when it was not a marketable article, the settler in New Ontario, in clearing his land, can in most cases sell the logs at a rate that will pay him well for his labor, and perhaps have something over. Moreover care is taken to see that every district thrown open for settlement is well served by railways or other means of transportation. This guarantees a market for both the timber and the produce that the settler has for sale.

The following is the mileage of railways in the below mentioned districts at the present time :

Muskoka and Parry Sound	184
Algoma	537
Thunder Bay and Rainy River	873
Nipissing	210
	1804

Of the above mileage the C.P.R. system covers 1,197 miles. The balance of 607 miles received substantial money or land grants from the Government.

In 1881 there were only twelve miles of railway in all these northern districts.

In addition there are in New Ontario excellent water supplies almost everywhere, and the settler knows what that adds to his comfort. Fish and game are found universally. And all these things, together with the present rapid establishment of schools, churches, and the other advantages of civilization, make life in a pioneer community in New Ontario vastly different to what it was in the earlier days in Canada.

How to Secure Land.

INFORMATION FOR SETTLERS.

IN order to obtain public land for settlement, it is necessary to apply to the Crown Lands Agent in the district where it is desired to locate. Publications giving full information regarding the special characteristics and advantages of the districts open for settlement, the price of land, settlement regualtions, maps, etc., may be obtained free on application to P. Byrne, Ontario Government Agent, 7 James St., Liverpool, England, or to Thos. Southworth, Director of Colonization, Toronto, Ontario, Canada.

THE WINTER'S CUT OF PULP-WOOD BY SETTLER IN NORTHERN ONTARIO.

The Mineral Resources of Ontario,

CHARACTER AND PRODUCTION.

THE mineral resources of Ontario are widely spread, varied in character, and cover almost the entire list of economic minerals with the exception of coal. Examination shows that even now, when only on the threshold of discovery and development, they are of great extent and value. Not only does the varied list include all the principal and commonly found metals, such as iron, copper, lead, silver and gold, but it also embraces the comparatively rare metal, nickel, the enormous deposits of which in the Sudbury district constitute one of the two sources of the world's supply.

Minerals.

The metallic minerals are found chiefly associated with the schists and chlorites of the Huronian system of rocks. Those rocks extend in belts or tracts sometimes for hundreds of miles among the Laurentian granites and gneisses, the latter constituting the main formation northward from the older settled portions of the Province to the Hudson Bay slope, and from Quebec boundary in the east to the Province of Manitoba in the west. The amount of systematic prospecting that has been done is small indeed in proportion to the extent of territory. The greater portion of the country has not even been run over by prospectors and cannot be thoroughly explored for many years to come. To the settled farming country of the south belong practically all the products of the structural material class. These, with petroleum, at present constitute nearly 55 per cent. of the whole mineral production of the Province. In the near future, however, the metallic mineral products are certain to assume much larger proportions. This statement is particularly true as regards iron, the mining of which has been greatly stimulated owing to the erection of blast furnaces at several points in the Province and the consequent demand for iron ore, following on the great advance in the price of iron during the last few years.

The ores of iron occur in Ontario in great abundance. The most important and extensive iron ranges are those of the Atikokan River, the Mattawin River, in the vicinity of Gunflint Lake and on Hunter's Island, all west of Lake Superior. Large bodies of hematite have recently been discovered at Michipicoton, on the east shore of that lake, some of which are being actively worked. These ranges may be followed for miles and the western ores are said to form a continuation of the Minnesota deposits, which now lead the world in the production of iron.

Iron.

Sudbury Nickel Deposits: Open pit, Creighton Mine.

Extensive ranges also exist to the north of Lakes Superior and Huron, and in the neighborhood of Lake Temagami. North-west of Lake Wahnapitae, and elsewhere, iron-bearing rocks occur, and a large body of magnetite of good quality has recently been located in the township of Hutton. In the eastern part of the Province there are large deposits of both magnetite and hematite.

The establishment of modern blast furnaces at Hamilton, Deseronto and Midland is leading to the opening up of a number of iron deposits. Similar furnaces are being built at Sault Ste. Marie, while others are projected for Collingwood, Kingston and Port Colborne, and the prospects for the industry are bright. The production of iron ore for 1902 was 359,288 tons, most of which was smelted in Ontario. The amount of pig iron produced was 112,687 tons, valued at $1,683,051, made from Ontario and United States ores. About 68,900 tons of steel were produced.

Nickel.

The most extensive deposits of nickel-bearing ore in the world are found in Ontario. They extend over a wide area north of Lake Huron, in the districts of Nipissing and Algoma, and recent discoveries of the ore have been made in the district of Parry Sound. The Town of Sudbury, on the Canadian Pacific Railway, is the centre of the industry. A few years ago experts from the United States Navy Department, who examined the Sudbury deposits, estimated in their report that there were 650,000,000 tons of ore in sight. This ore, which is nickeliferous pyrrhotite, contains from 1½ to 3½ per cent. of nickel and from 2 to 4 per cent. copper. Since then other discoveries have been made within an area of about 2,000 square miles, some of which are being developed. Mining operations were commenced at Sudbury in 1886, and the districts now furnishes about half the world's supply. The copper-nickel matte is at present shipped to the United States, where the final stages of the processes of extraction and refining are carried on. In 1902, 11,890,000 pounds of nickel were produced, valued in the matte and before being exported for refining at $2,210,961.

All the indications point to a steady increase in the consumption of nickel and give assurance that this industry will grow to much larger proportions. It seems probable that the greatest use for it will be in the manufacture of nickel steel. When united with steel it forms an alloy of great strength and hardness. This alloy is used in the making of cannon, small arms, armour plate, boilers and machinery, etc., where strength, malleability, capability to take a fine polish and freedom from rusting are valuable properties.

At present, copper is produced in Ontario chiefly as a by-product of the nickel industry. The most important copper-bearing section hitherto discovered extends northwards from the shores of the Georgian Bay. This belt may be traced from the Parry Sound District to Lake Superior, a distance

of over four hundred miles in a straight line, and northward to the Height of Land. It is estimated to cover an area of 20,000 square miles, and throughout this territory there is no considerable portion in which copper-bearing rocks do not occur. Valuable veins of chalcopyrite, an ore of copper, are frequently met with, besides the nickel-copper ores already referred to. One square mile of this country, which included the Bruce mines and one or two other properties, yielded, between 1849 and 1876, $3,300,000 worth of copper. The Rock Lake Company is developing some promising properties in the same section. Near Parry Sound, also, some valuable deposits have been located and are being opened up. The improved method for the mining and extraction of the ore, recently introduced, and the more favorable conditions of the market, make it certain that many of these copper deposits can and will be worked most profitably. In 1902, 4,932 tons of copper were produced, valued in the form of matte at $680,283.

Copper.

Gold mining in Ontario is a new industry, and although a promising one, it cannot as yet be said to be well established. The best-known gold bearing section of Ontario lies to the west of Lake Superior and between it and the Manitoba boundary in the Rainy River and Thunder Bay districts. It comprises a parallelogram of country about 250 miles long by 100 or 130 miles wide, lying immediately north of the State of Minnesota—a tract of at least 2,000 and probably 3,000 square miles. Here along the shores of the Lake-of-the-Woods, Rainy Lake, the Seine River, Manitou, Wabigoon and Shebandowan Lakes, and elsewhere, a great number of promising gold discoveries have been made during the past few years. Many of these will, with the advent of capital and competent management, become paying mines, but, with a few exceptions, development has not proceeded far enough to place them beyond the experimental stage. How much farther north this gold country extends it is difficult to estimate, as new discoveries are continually being made. In Eastern Ontario gold mines are also being successfully worked.

Gold.

In many other parts of Ontario promising discoveries have been made, such as at Michipicoten on Lake Superior, and in the county of Hastings in Eastern Ontario, where a good deal of the ore is of a refractory nature and yields arsenic as well as gold. In 1902, 13,625 ounces of gold were produced, valued at $229,828.

The production of silver from the mines near Port Arthur,—some of which have lately been reopened,—amounted in 1902 to 96,666 ounces, valued at $58,000.

Silver.

Among the non-metallic substances, Ontario possesses the basis of two permanent and important industries in its salt beds and petroleum wells.

Peach Orchard in the Niagara District, Ontario.

Salt and Petroleum.

The whole shore of Lake Huron from the latitude of Kincardine southward, and for many miles inland, is underlaid by thick beds of salt, supplying a high grade of salt, used not only as such, but also as the raw material of bi-carbonate of soda, soda-ash, bleaching powder and other essentials for the textile and other industries.

The petroleum industry leads all others of a mineral nature in the value of yearly output, and affords an admirable example of what enterprise and skill can do in the profitable utilization of raw material.

Statistics of production for the year 1902 are as follows :

	Quantity.	Value.
Crude petroleum, Imperial gallons....	18,185,592	$940,104
Illuminating oil, "	7,720,866	715,513
Lubricating oil, "	2,765,677	287,219
Benzine & Nephtha, " ...	902,847	104,696
Gas, fuel, oils and tar, "	2,157,039	83,426
Paraffin wax and candles, lbs.....	2,433,127	108,107

The number of working wells in 1902 was about 10,000. The centres of the industry are the towns of Petrolia and Sarnia.

The cement business has also undergone satisfactory development during the past few years. The product for 1902 amounted to 600,199 barrels, valued at $967,016.

Natural Gas.

The existence of natural gas in Ontario was first discovered in 1889, since which date a great many wells have been sunk, principally in the counties of Welland and Essex. The product is valued at about $200,000 per annum.

Ontario abounds in building stones of many kinds and often of excellent quality, including granites, gneisses, serpentines and occasionally, marbles.

Building Stone.

Limestones and sandstones are quarried in a great many places in the southern and thickly inhabited parts of the Province, chiefly for local use, but also for the supply of the larger cities, and to a small extent for export. In the products of clay—brick, tile, terra cotta and sewer pipe—the output is limited only by the market. The value of the structural materials and clay products for the year 1902 was estimated to be $3,800,000, and giving employment to 6,100 operators.

Corundum, graphite and mica are now being produced in considerable quantities, and gypsum and talc to a smaller extent.

The mining law of the Province is embodied in the Mines Act, R.S.O., 1897, Chapter 36, as amended by the Acts of 1899 and 1900.

Mining Laws.

The price per acre for mining lands ranges from $2.00 to $3.50, according to the distance from a railway, and whether in surveyed or unsurveyed territory. If a lease be preferred it can be obtained on payment of $1.00 per acre for the first year, and 15c. to 30c. per acre for

subsequent years. Lessees have the privilege during the currency of their lease of purchasing the lands outright; or at the end of ten years, if all rent has been paid and the statutory conditions complied with, the lessee gets a grant without further payment.

Mining lands cannot be held without being worked, the law requiring at least $6.00 per acre to be expended in development work during the first seven years, at the rate of $1.00 per acre for the first two years and $1.00 per acre per annum for the next five years.

Prospecting for minerals on Crown lands is encouraged by free grants of forty acres where valuable discoveries are made in new territory.

In a Mining Division a miner's license, costing $10.00 per annum, entitles the holder to stake out mining claims of twenty-two and one-half or forty acres, and to hold the same on performing the required development work. Similar regulations are in force with respect to unsurveyed territory.

The greatest area which may be granted to any individual in one year is 320 acres of land containing the same class or kind of ore or mineral within a radius of fifteen miles in any county or district. To companies, syndicates or partnerships the maximum area is 640 acres.

The royalties formerly reserved to the Crown have been abandoned.

The Forest Wealth of Ontario.

THE forest trees of Ontario are more varied in species than those of any other Province in the Dominion. What is now the settled portion was once entirely covered with a dense growth of hardwood trees, consisting chiefly of oak, hickory, basswood, maple, elm, ash and beech. Coniferous trees were comparatively few. In the south the original forest has now largely disappeared, having gradually receded as the land was brought under cultivation until, at the present time, only about twenty per cent. of this portion of Ontario is forest land. With the forest has also receded the lumber industry, which for years has been and still is one of Ontario's primary sources of wealth.

Forest Wealth.

Northern Ontario, the present seat of the lumbering operations, is still a tree-covered wilderness. Here the growth belongs largely to the coniferous varieties such as the pine, spruce, balsam, cedar, larch and hemlock, with the birches and poplars. In the southern limits of the district, large and valuable tracts of hardwood exist ; but as progress is made northward, these trees become fewer in number until they finally disappear from the forest. The north is not so rich in variety of species as the south originally was, but the great extent of its forests, and the growing demand for the kinds of wood they contain, make them of great importance in considering the country's forest wealth.

Foremost among the trees of Ontario, both for value and commercial importance is the white or Weymouth pine. Pine has long been the chief wood exported, and is still the main object of lumbering operations. While the quantity of pine still existing in Ontario is difficult to estimate, and is not nearly so large as it once was, it is admitted by competent authorities that the Province still possesses a larger supply of this wood than is to be found anywhere else on the continent of America.

The White Pine.

Next in importance is the spruce, a tree which is found almost everywhere in the North in large quantities, intermingled with the other forest growth. It is indeed the most abundant tree in this portion of Ontario. The farther north one proceeds, the more plentiful does the spruce become, until after the divide, or Height of Land, is crossed, a continuous forest of spruce, extending to the shores of Hudson Bay, is found to exist, which is probably the most extensive in the world.

Spruce.

Canadian spruce is admittedly superior to the European variety for the manufacture of wood pulp, which is in increasing demand for paper, textile fabrics, and a great number of other articles.

Lumbering Scene in a Northern Ontario Pinery.

Estimate of Pulpwood Areas.

	Cords.
Nipissing	20 000 000
Algoma	100 000 000
Thunder Bay	150 000 000
Rainy River	18 000 000
	288 000 000

Taking this quantity of pulpwood at the present rate of dues, viz., 40 cents per cord, Ontario has an asset of $115,200,000.

The Pulpwood Industry.

Vast as the pine timber industry in Ontario has been, and despite its great value in adding to the wealth of the Province and assisting in supporting its industrial life, these immense forests of spruce are equally important, in fact are likely to be of even greater value than the pine resources.

While there is considerable spruce large enough to make sawn lumber, great forests of this tree stand so thick on the ground as to prevent large growth and much of it is mainly valuable for wood pulp. These forests, if thinned out, would, of course, grow to a size suitable for saw log purposes, but the growing demand for spruce for the manufacture of paper renders the tree very valuable, even when of small size. Because of this, spruce may be cut in from 20 to 30 years from the seed, and therefore two crops of spruce can be harvested to one of pine. By reason of this natural law of reproduction, Ontario's pulpwood forests cannot be exhausted by gradual utilization.

The Recent Growth of the Industry.

The wood pulp industry is of comparatively recent growth but is increasing rapidly. Owing to the nature of the industry, the large capital required in its development, and the fact that pulpwood grows in a more scattered form than pine, it was early seen that the method of disposing of the pine timber would not be applicable in this case. The pine timber is sold to the highest bidder at public auction and the license issued for one year only, renewable till such time as the timber has been removed from the land. Very little capital was required except in the purchase of the timber. In the pulp industry the conditions are entirely different. It was in the first place important to the industry and general welfare of the Province that the pulpwood should not be sold and exported from the country in its raw condition. In order to manufacture it into pulp, large buildings with expensive equipment are needed, requiring enormous power, and in order to warrant so extensive an investment, the capitalists would naturally require for a long term of years a reasonable guarantee of a supply of wood necessary for the continuance of the industry. The policy of the Government therefore has been to grant concessions over a limited territory containing spruce and kindred woods, for a term of years—usually twenty-one - on condition that the capitalists expend a certain amount

Undeveloped Water-power in Northern Ontario.

of money in erecting mills and manufacture into pulp all the wood cut upon this territory, with a guaranteed number of hands to be employed, the Government also collecting from the concessionaires dues representing the value of the wood when cut. Formerly the dues on spruce was 20 cents per cord, but with its increasing value the dues was, on March 20th, 1900, increased to 40 cents per cord.

The export of pulpwood in a non-manufactured condition has also been prohibited by a bill introduced by the Commissioner of Crown Lands on March 7th, 1900, so that the law now provides that all pulpwood cut on Crown Lands in the Province must be manufactured in Canada, the same as pine saw logs, thereby giving employment to home industry and in a practical way aiding in the development of New Ontario and building up the trade of the Province.

Pulpwood Concessions.

In accordance with this policy, concessions have been granted to various companies, some of which have already erected mills and are in active operation, others of which have not yet completed their part of the agreements. The following is a list of agreements entered into with different companies and the amount agreed to be invested.

	Capital to be invested.	Employees.
Sault Ste. Marie Pulp and Paper Co	$ 400,000	400
Sturgeon Falls Pulp and Paper Co	1,000,000	240
Spanish River Pulp and Paper Co	500,000	250
Blanche River Pulp and Paper Co	750,000	300
Nepigon Pulp, Paper and Mfg. Co	200,000	200
Keewatin Power Co	1,500,000	500
	$4,350,000	1,890

The above sums required to be invested under the agreements are minimum amounts only. Some of the enterprises mentioned have already expended sums largely in excess of those called for by their agreements, and instead of the $4,350,000 demanded the capital invested will ultimately reach many millions, necessitating the employment of several thousand men.

These mills will undoubtedly find it to their advantage to further manufacture this pulp into paper before sending it abroad, thus requiring a further expenditure of capital and the employment of additional labor.

Water Powers.

Not only has Ontario an almost limitless supply of the right kind of raw material, but she has also extensive water powers and suitable labour, both important factors in the successful manufacture of pulp.

The growing importance of water powers in industrial development, especially their use in generating electricity, has been recognized by the Government; which in 1898 deemed the time had come to do away with the old system by which valuable water privileges were granted in fee without re-

quiring them to be improved, thus allowing of their being locked up for purposes of speculation. Accordingly an Act was passed (61 Victoria, chapter 8), entitled An Act respecting Water Powers, under which Regulations were made providing that all water privileges in excess of 150 horse-power disposed of thereafter should be leased on condition of actual development within a specified period, with a proviso that other persons should be furnished power not required by the lessees at rates subject to the control of the Lieutenant-Governor in Council.

The rental asked is very moderate, the object being to encourage the development of the many large water falls characteristic of northern Ontario, while at the same time protecting the public by making development compulsory and providing for reasonable rates to users of power.

Not nearly as much hardwood is exported from Ontario as formerly, but the supply is still large—larger perhaps than is generally supposed—and will continue to supply domestic consumption and contribute to export for years to come.

Wood Manufactures.

Ontario is the centre of the wood employing industries of Canada, and manufactures household furniture, doors, sashes, blinds, matches, etc., for export. The value of the exports of the Province in wood, wood products, and the manufactures of wood, is about $10,000,000 annually.

Under a recent Ontario statute, pine, spruce, and other soft woods, must be sawn or manufactured in the Province, and cannot be exported in the log. As a consequence, the saw-milling industry is more active than at any previous time in its history, and gives employment to a large number of persons.

Increase in Cut of Ontario Saw Mills.

Some idea of the growth of the saw-milling industry in Ontario during the last few years, principally as a result of the prohibition of the export of logs cut on Crown Lands, may be seen from the following tables. It is not possible, of course, in a statement like this to be exact to a dollar, but the figures given have been gathered from what are believed to be the most reliable sources and have been compiled with great care. The first table deals with new mills which have been erected, and the second with mills which stood in disuse for several years while Ontario logs were being towed across to the Michigan shore, but which have been refitted and again put in commission since the prohibition of export.

NEW MILLS ERECTED.

Cost	Hands Employed	Annual Cut
$849,400	1,218	212,250,000 ft., B.M.

OLD MILLS REFITTED AND NOW IN OPERATION.

Expenditure	Hands Employed	Annual Cut
$181,500	1,105	147,500,000 ft., B.M.

A total expenditure of $1,030,900 on saw-milling properties, which give employment to 2,323 men for a great part of the year, and whose annual cut is 359,750,000 feet broad measure. It is estimated that the cost of sawing and piling pine lumber on the Great Lakes is about $2.50 per thousand, so that the amount of money from this source, which is annually disbursed among Canadian workmen, to be expended in Canadian towns and villages, can be very easily arrived at. To this amount should be added, too, the freight paid Canadian railways and vessel owners on the shipment of the sawn lumber, amounting to about $2 per thousand.

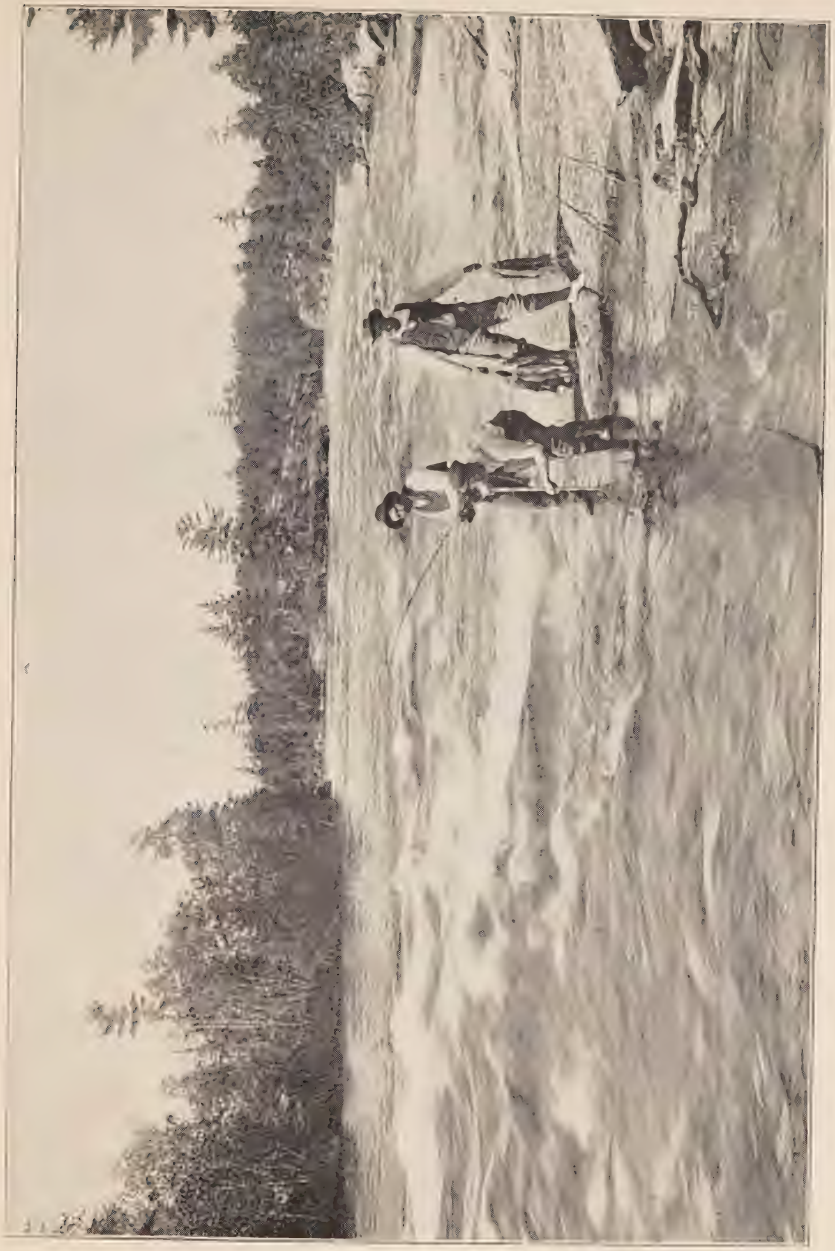
Commercial Fisheries.

THE commercial fisheries of Ontario are of inestimable value as a national possession, and constitute an important field of industry. The fisheries of the Great Lakes are the most extensive in the world so far as fresh water fish are concerned, while in addition, the northern and north-western waters teem with the finer qualities of fish. The fishing industry is now carefully regulated by the Government of the Province, and under the judicious policy that has lately been adopted, it is likely in the near future to afford a livelihood to considerable numbers of people, and become an important and continuous source of food supply and revenue.

Leading Varieties.

The principal fish found in the waters of the Province are the whitefish, salmon-trout, herring, sturgeon, bass, pickerel, pike, and maskinonge. The industry gives employment to about 2,000 men, and represents an investment of a million dollars in tugs, boats, ice-houses, and appliances. The annual catch averages about a million and a quarter of dollars in value, and the industry yields a revenue to the Province of over $35,000.

To preserve this great inheritance for succeeding generations, the Government has adopted a judicious policy of administration and protection.



A Good Catch.

There are 116 paid overseers permanently employed in the work of supervision and guardianship, as well as two fully equipped steam patrol boats; and in many sections protective associations have been organized to co-operate with the Government in the work of protection, by creating and fostering a proper public sentiment.

Angling Waters.

But the value of this resource is not restricted to our commercial fisheries alone, for our angling waters will perhaps benefit a larger individual population, as year by year an increased number of tourists are attracted to our country to participate in our fishing. It is absolutely impossible to estimate even approximately the value to the Province and the country which accrues from this great influx of visitors in advertising its many resources, etc.; but the amount in money expended among us may safely be placed at hundreds of thousands of dollars annually.

The attraction of tourists and summer visitors, and the pecuniary and other benefits to be derived therefrom, is therefore a most important item of business, and any means for its extension and perpetuation will receive the best consideration which the Government can give to it. In the newer districts, supplying the requirements of these visitors is one of the principal outlets which the settlers have for the products of their farms. Some of the small lakes, where the flow of tourists has been greater than in other quarters, have been so persistently fished, and, it is a regrettable fact, have in years gone by been so ineffectively protected, that they are now in a more or less depleted condition To restore such waters, and to anticipate the great drain that will be created by the increased number of anglers, the Government has already embarked upon the work of re-stocking with game fish, 9,478 adult bass alone having been deposited last year at twenty different points in the Province. Never before in our history has so much interest been manifested in, or attention devoted to, fishery matters, both by the press and the public generally, as during the last year, and it is gratifying to learn that they fully appreciate the efforts already put forth. In due time the Government hopes to have every stream, river and lake throughout the whole Province, stocked with game fish.

The newer and undeveloped portion of the Province, extending to Lake-of-the-Woods on the west and James Bay on the north, includes thousands of lakes, which may be truthfully said to literally teem with the most valuable species of fish. When the progressive railway policy of the Province opens up these vast regions, and connects them with the outer world by rendering them more easily accessible, one of the richest resources therein will be found to be the fisheries, which will yield a continuous and valuable source of food supply to the settlers who may repair thereto to found new homes for themselves and their families. Information with regard to these lakes—their size,

location, the kinds of fish they contain, etc., is being obtained and filed in the Department for the guidance and information of prospective applicants for fishing privileges therein.

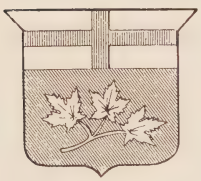
Salt Water Fisheries.

To the salt water fisheries of Hudson Bay, some reference has already been made, but the returns are not included in the figures given above. When railway communication is opened up, as it is likely to be in the near future, the product of this sea will doubtless form an important factor in the industry.

The Hudson Bay Company have established salmon fisheries along the lower part of the several rivers discharging into Ungava Bay. The fishermen employed are all Esquimaux. Trout are taken in large quantities and of good size, the largest reported weighing fourteen pounds and the average being from six to seven pounds. In addition to salmon and trout, cod, whiting, hake, pollock and other fish abound.

Whale Fishery.

The whale fisheries of Hudson Bay are also extensive, and for forty years past American whalers have regularly found a harvest there. The value of fish and whale oil alone taken from Hudson Bay by United States whalers and the Hudson Bay Company is estimated at $150,000 a year. The hair seal is also very numerous in these waters.



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